



TOWN OF MELBOURNE BEACH

TOWN COMMISSION WORKSHOP

APRIL 2, 2025

6:00 PM

AGENDA PACKET

Town of Melbourne Beach

TOWN COMMISSION WORKSHOP

Wednesday, April 2, 2025 @ 6:00 pm

COMMUNITY CENTER – 509 OCEAN AVENUE

PUBLIC NOTICE AGENDA

Commission Members:

Mayor Alison Dennington
Vice Mayor Dawn Barlow
Commissioner Robert Baldwin
Commissioner Anna Butler
Commissioner Tim Reed

Staff Members:

Town Manager Elizabeth Mascaro
Town Clerk Amber Brown

PURSUANT TO SECTION 286.0105, FLORIDA STATUTES, THE TOWN HEREBY ADVISES THE PUBLIC THAT: In order to appeal any decision made at this meeting, you will need a verbatim transcript of the proceedings. It will be your responsibility to ensure such a record is made. Such person must provide a method for recording the proceedings verbatim as the Town does not do so.

In accordance with the Americans with Disability Act and Section 286.26, Florida Statutes, persons needing special accommodations for this meeting shall, at least 5 days prior to the meeting, contact the Office of the Town Clerk at (321) 724-5860 or Florida Relay System at 711.

1. **Call to Order**
2. **Roll Call**
3. **Pledge of Allegiance and Moment of Silence**

4. **Public Comment**

After being acknowledged by the Mayor, members of the public should state their name and address for the record. The Commission encourages citizens to prepare their comments in advance. Each individual will have three (3) minutes to address the Commission on any topic(s) related to Town business, not on the Agenda. Please remember to sign the sign-in sheet provided if you will be speaking at the meeting.

5. **New Business**

- A. Environmental Advisory Board presentation on recommendations to amend the Town Code of Ordinances Chapter 9A: Landscaping and Trees and Chapter 11A: Environmentally Sensitive Lands
- B. Planning and Zoning Board presentation on recommendations to amend the Town Code of Ordinances Chapter 9A: Landscaping and Trees of the Town Code of Ordinances

6. **Adjournment**

Dear Honorable Members of the Melbourne Beach Town Commission:

We, the Melbourne Beach Environmental Advisory Board (EAB), have been approached by Town citizens expressing their disappointment over the recent loss of large, very old canopy trees in town. The EAB has met several times to discuss this issue, sought input from others – including a neighboring town’s arborist, and has reviewed the landscape ordinances of several nearby municipalities.

Through this effort we have prepared the suggested modifications to the Town’s landscape ordinance (9A and 11A) in an effort bolster their strength in the following areas:

- Preservation of native canopy, especially live oak, the very slow-growing sand live oak, and protected species
- Replacement of lost native canopy trees with native canopy trees of size
- Inclusion of more native shrubs in landscape designs
- Reduction of invasive species

We look forward to the opportunity to present our ideas to you at the upcoming workshop.

Thank you for your attention,

EAB

ARTICLE I. LANDSCAPING

§ 9A-1. DEFINITION.

For the purpose of this article the following definitions shall apply unless the context clearly indicates or requires a different meaning.

Canopy Tree: A tree that has layers of leaves, branches, and stems that provide shade and cover the ground when viewed from above and will develop a crown spread of 25 feet or greater at maturity.

Certified Arborist: A professional who has been trained in the art and science of planting, caring for, and maintaining trees. To become certified, an arborist must pass an exam administered by the International Society of Arboriculture (ISA), which tests knowledge in areas such as tree biology, diagnosis, pruning, soil management, and pest control.

Diameter at Breast Height (dbh): Diameter at breast height measured four feet six inches (4' 6") above grade. Diameter is calculated by dividing the circumference of the tree at that height by 3.14.

Drip Line: Refers to the area on the ground directly beneath the outermost edges of the tree canopy. Tree roots often extend beyond this area.

Florida Friendly Landscaping: Quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant. It is defined by § 375.185(b), Fl. Stat. and by the University of Florida's *Institute of Food and Agricultural Sciences (IFAS)*.

Invasive (or Noxious): A plant species that is non-native to a specific geographic area, was introduced intentionally or unintentionally, and does or can cause harm to the environment, economy, or humans. (UF/IFAS Invasive Species Council, 2021)

Landscape Officer: Any person hired and appointed by the Town as Landscape Officer with the authority and responsibility to administer the provisions of this Code. The Landscape Officer shall receive such training in arboriculture and code enforcement as is deemed necessary by the Town Administration.

Native (Tree or Plant): A species whose natural range included Florida at the time of European contact (1500 AD). Such species are understood as indigenous, naturally occurring prior to significant human impacts and alterations of the landscape. Categorized lists of many Florida native plant species are provided in section 9A-14.

Protected Tree: Large native trees 10 years or older, identified as Protected Tree in paragraph 9A-14.

YARD AREA. The front, side and rear yard areas as established and required by Chapter 7A.

(` 75 Code, § 22-17) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17)

§ 9A-2. INTENT.

The intent of this article is to preserve trees whenever and wherever they exist and to provide trees wherever they are sparse or do not exist, thus enhancing the health, welfare and beautification of the Town. The intent of the article also includes the encouragement of “Florida Friendly Landscaping” as defined by § 375.185(b), Fl. Stat. and “Florida Native Landscaping” as defined by the University of Florida’s *Institute of Food and Agricultural Sciences (IFAS)*.

This chapter addresses the increasing canopy loss in the Town, by setting standards to help restore it one property at a time and preserve the environment of the Town for future generations.

Landscaping and trees benefit the Town by performing functions such as the following:

- *Absorb carbon dioxide and return oxygen to the atmosphere.*
- *Remove dust and other particulates from the air.*
- *Provide wildlife habitat, particularly for birds which, in turn, help control insects.*
- *Provide soil stabilization, which reduces erosion and mitigates the effect of flooding.*
- *Provide shade to conserve energy, reduce glare, and make outdoor areas more comfortable during hot weather.*
- *Reduce ground-level wind speeds during tropical storms and hurricanes, thereby reducing danger to people and damage to property.*
- *Enhance the Town's attractiveness.*
- *Provide attractive buffering between different land uses.*
- *Reduce noise and surface water runoff.*
- *Mitigate conflicts between adjoining land uses.*
- *Maintain immediate benefits of decade and century old mature trees which cannot be quickly replaced by a new sapling.*

(` 75 Code, § 22-16) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17)

§ 9A-3. APPLICABILITY.

The terms and provisions of this article shall apply to all real property in all zoning districts.

(` 75 Code, § 22-18) (Ord. 75-3, passed 5-27-75; Am. Ord. 87-13, passed 9-22-87; Am. Ord. 2017-05, adopted 12-20-17)

§ 9A-4. PERMIT REQUIRED FOR ~~CUTTING DOWN~~REMOVING TREES.

No person, organization, society, association or corporation, or any agent or representative thereof, directly or indirectly, shall cut down, destroy, remove, move or effectively destroy through damaging any live scrub oak of any size, or any non-invasive tree with a trunk diameter four inches (4”) dbh or greater, situated on property in any zoning district without first obtaining a permit as herein provided. Tree removal on any property in any zoning district shall be in accordance with the standards mandated in the most recent edition of the *Best Management Practices - Tree Risk Assessment* published by the International Society of Arboriculture or a certification from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect as to substantial compliance with such standards. Any tree which poses an unacceptable risk may qualify for removal without a permit pursuant to Fla. Stat. § 163.045 or as such section may be amended. A current list of Certified Arborists with a tree risk assessment qualification is maintained by the Town manager.

(` 75 Code, § 22-19(a)) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17; Ord. 2023-01, adopted 3-15-23)

§ 9A-5. APPLICATION FOR PERMIT; REVIEW OF APPLICATION.

(a) Application. Permits for removal, relocation, or replacement of trees covered herein, shall be obtained by making application for a permit to the Building Official. The application shall be accompanied by a written statement indicating the reason for removal, relocation, or replacement of trees and two copies of a legible site plan drawn to a minimum scale of one inch (1”) equals 20 twenty feet (20’), indicating the following:

(1) Location of all existing or proposed structures, improvements, and sites used, properly dimensioned and referenced to property lines, setback, and yard requirements;

(2) Location of existing or proposed utility services, when known;

(3) The location of all trees on the site designating the trees to be retained, removed, relocated, or replaced. Groups of trees in close proximity may be designated as clumps of trees with the predominant type and estimated number and average diameter noted. Only

those trees to be removed, relocated, or replaced must be named (common or botanical name) on the site plan;

(4) The tree information required above shall be summarized in legend form on the plan and shall include the reason for the proposed removal, relocation, or replacement; and

(5) An application involving developed properties may be based on drawings showing only that portion of the site directly involved, and adjacent structures and landscaping or natural growth incidental thereto.

(b) Application review. Upon receipt of a proper application, the Building Official shall review the application, which will include a field check of the site and referral of the application to others concerned as necessary, to determine any adverse effect upon the general public welfare, adjacent properties, or Town services and facilities.

(` 75 Code, § 22-19(b), (c)) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17; Am. Ord. 2023-01, adopted 3-15-23) Penalty, see § 9A-12

§ 9A-6. ~~ON-SITE INSPECTION CRITERIA FOR TREE REMOVAL PERMITTING.~~

(a) On-site inspection. Prior to the issuance of ~~any~~ permit for tree removal or relocation ~~(and prior to issuance of a certificate of occupancy in the case of new construction)~~, the Building Official or his agent shall conduct an on-site inspection to determine ~~whether or not~~ if such a removal or relocation conforms to the requirements of this chapter. ~~The on-site inspection will also be conducted by a Landscape Officer in the case of new landscape designs or permits to remove one or more canopy trees.~~

(b) Issuance.

(1) Removal. No permit shall be issued for tree removal unless one of the following conditions exists:

a. The tree is located in a buildable area ~~of the property~~ where a structure or improvements may be placed ~~and~~ where ~~not removing~~ the tree would unreasonably restrict the permitted use of the property and the tree removal has been authorized by the Town as part of a site plan review;

b. The tree cannot be relocated on or off the site because of age, type, or size of tree;

c. The tree is diseased, dead, injured, in danger of falling, too close to existing or proposed structures, interferes with utility service, creates unsafe vision clearance ~~at intersections or road entries~~, or conflicts with other ordinances or regulations; or

d. It is in the welfare of the general public that the tree be removed for a reason other than set forth above.

e. Protected Trees shall not be permitted to be removed without Town Commission approval. Protected Tree determination will be conducted by the Landscape Officer during on-site inspection.

(2) Relocation or replacement. As a condition to the granting of a permit, the applicant may be required, where practical, to relocate the tree being removed or be required to replace the tree being removed with a tree somewhere ~~within the site on the property~~ of the type that will attain an overall height of at least twelve feet (12') and have a trunk caliper of ~~at least four two~~ inches (24") dbh at planting, ~~measured four and one-half feet (4.5') above grade. The green areas left after all building and parking lot requirements have been met shall contain a tree density equal to or greater than that what was existing on the overall site before the beginning of construction.~~ A permit to relocate a tree will be granted only if there is a reasonable expectation that the tree will survive the relocation and thrive in the new location. The Town may require a recommendation from a Department of Agriculture Forester or a Certified Arborist to determine and assure that the tree is of a species which can be successfully moved at its current size and that all conditions for its survival are being met in the plan to relocate.

(` 75 Code, § 22-19(d)) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17; Am. Ord. 2023-01, adopted 3-15-23) Penalty, see § 9A-12

§ 9A-7. MINIMUM TREE PLANTINGS.

(a) -Landscaping in all zoning districts.

(1) All developed lots within the Town shall be landscaped in accordance with the provisions of this section. All lots to be developed or re-developed shall be landscaped in accordance with this chapter prior to the issuance of a final building inspection or certificate of occupancy.

(2) All permeable and semi-permeable areas of the site shall be designed and maintained in a manner which allows water to percolate into the ground and prevents erosion from wind or rain.

(3) Landscaping plans must incorporate Florida-Friendly landscaping principles, including the use of drought-tolerant native plants, efficient irrigation systems, and soil amendments that promote water retention, consistent with the guidelines set

forth by the Florida-Friendly landscaping program and Chapter 373.185, Florida Statutes shall be used for all new development and redevelopment. Excluding the grass lawn, at least 70 percent each of the number of ground covers, grasses, vines, shrubs, and trees comprising the landscape shall be native plants selected from the current edition of the Florida Native Plant Society's list of native plants, as applicable to the East Central Florida Region. A list of native trees and plants known to survive within this region is listed in section 9A-14. This applies to tree removal permits and for all lots being developed or redeveloped with new construction.

(4) Any other activity that involves replacement of ground covers, grasses (excluding lawns), vines, shrubs, and trees, replacement species should be Florida natives until or unless 70% native plantings is already attained.

(5) Plants in the Florida Invasive Species Council's most current list of invasive species shall be removed from a property during development or redevelopment and shall not be used in landscapes.

(6) Each lot shall contain at least one (1) canopy tree and seven (7) shrubs for each two thousand (2,000) square feet of lot area (rounded up to the next whole tree). This applies to tree removal permits for vacant lots and to all lots being developed or redeveloped.

(7) For any other activity that involves tree or shrub removal, canopy and shrubs should be replaced one for one, unless the (1) canopy tree and seven (7) shrubs for each 2,000 square feet of area (rounded up) is already attained.

~~(a) Trees in residential zoning districts. Trees planted must be of a variety which is compatible with the existing soil and drainage conditions and must be provided with adequate water and food materials to encourage growth. Trees shall be planted in locations so as not to cause danger to nor interference with existing structures at the time of maturity.~~

(b) Buffer and tree planting requirements for all non-residential and multiple family residential uses.

(1) A landscape buffer with a minimum of ten feet in width shall be provided between any residentially zoned property and a property utilized for a non-residential or multiple family residential use. Responsibility for providing a landscape buffer shall be upon the nonresidential or multifamily use. The landscape buffer shall include a minimum of one canopy tree for every 40 linear feet, or fraction thereof. In addition, one ~~ornamental smaller~~ tree or palm shall be planted for each 50 linear feet, or fraction thereof.

(2) A landscape buffer with a minimum of ten feet in width shall be provided along all road frontage of the site. The landscape buffer shall include a minimum of one canopy tree for every 25 feet of frontage, or fraction thereof.

(3) A continuous hedge shall be planted in all perimeter landscape buffer areas.

(4) Parking areas shall be designed so that there is a minimum of two hundred (200) square feet of open space, not including perimeter landscape buffer areas, at the end of each row of parking. In addition, a minimum of two hundred (200) square feet of open permeable green space shall be provided in the interior of the parking lot for each ten parking spaces, or fraction thereof. These open spaces shall be distributed throughout the parking lot in a manner that no more than ten parking spaces in a row shall be allowed without an intervening landscaped area.

(5) Minimum specifications for trees and hedge material shall be as follows:

a. Canopy trees at the time of planting shall have a trunk diameter of two four (4) inches dbh measured four and one-half feet above grade. The trees shall be a minimum of eight feet in height and have a minimum spread of five feet. The trees are not required to be spaced evenly along property lines.

b. ~~Ornamental trees~~ Trees smaller than canopy trees at the time of planting shall at the time of planting have a trunk diameter of one and one-half inches measured four and one-half feet above grade. The trees shall be a minimum of six feet in height and have a minimum spread of four feet.

c. Palms at the time of planting shall have a minimum clear trunk of eight feet.

d. Hedge material at the time of planting shall be a minimum of eighteen (18) inches in height when planted. Individual plants shall be planted a maximum of 24 inches on center.

(6) All plant material shall be Florida Number 1 in quality and shall be planted according to sound landscape installation standards.

(7) All landscaping shall be maintained to present a neat and orderly appearance. Dead, deteriorating or missing landscape material shall be replaced with substantially equivalent landscaping as permitted by the Land Development Code in 9A-7(a). Replacement of landscaping material shall occur within sixty (60) days of loss, unless said time is extended by the Town Manager for good cause shown.

(8) Variations to landscape requirements-Exceptions shall be considered on an individual basis based upon demonstrated unique characteristics of the site in question (for variations to landscape requirements)- Any such reduction or relocation shall comply

~~with the intent of this chapter when obstacles such as overhead power lines or other conditions inhibit the ability to comply.~~

~~—(9) Canopy trees shall be those that develop a crown spread of 25 feet or greater at maturity. Trees with less than twenty five (25) feet of crown spread at maturity shall be considered ornamental trees.~~

~~—(10) Clusters of three palms shall be an acceptable substitute for up to 50% of the required canopy trees and 50% of the required ornamental trees.~~

(11) Landscape material should be drought tolerant to the extent practical and feasible. A water source shall be available to ensure the plant material can be watered while it is being established and during drought occurrence. Automatic irrigation systems may be utilized.

(12) Currently developed sites that do not meet the landscape requirements will not be considered non-conforming. Landscaping consistent with the regulations shall be installed at these sites, to the extent practical, as redevelopment occurs. ~~Unless complete reconstruction or rehabilitation that results in closure of a building or buildings for a period of over six months occurs, full compliance with this section shall not be required.~~

(ed) Minimum replacement standards for ~~new construction development or re-development under the guidelines of the Land Development Code. Any trees that are removed for new construction shall be replaced by the same or similar species.~~ Specifically for ~~mature~~ oak trees 10 years old or more, replacement of ~~one (1)~~ two for one similar species for each tree removed shall be required which at a minimum will attain an overall height of at least twelve feet (12') and have a trunk caliper of at least ~~two-four (4)~~ inches dbh (2") at planting, ~~measured four and one-half feet (4.5') above grade. The two for one oak replacement is required until the mini number of canopy trees required has been met.~~

(de) Maintenance of trees and landscaping. If the removal of any tree or landscaping from any lot causes the number of remaining trees or vegetative species to fall below the minimum standards required by this section or as reflected on any approved site plan or landscaping plan for said lot, replacement trees or vegetative species meeting the requirements of this chapter ~~section~~ or any approved site plan or landscaping plan shall be re-planted on the lot within thirty (30) days after removal.

(` 75 Code, § 22-20) (Ord. 75-3, passed 5-27-75; Am. Ord. 87-13, passed 9-22-87; Am. Ord. 2008-08, adopted 9-3-08; Am. Ord. 2009-03, adopted 4-15-09; Am. Ord. 2017-05, adopted 12-20-17; Am. Ord. 2023-01, adopted 3-15-23) Penalty, see § 9A-12

§ 9A-8. TREE PROTECTION.

(a) Protection of trees during land-clearing.

(1) Trees ~~that are~~ retained during land-clearing of an approved development or re-development project can be applied toward total tree requirements for the property. Prior to land-clearing, on-site protection must be initiated by constructing suitable protective barricades around trees to prevent mechanical damage. Barriers should be constructed around individual trees or groups of trees that are susceptible to mechanical damage. Protective barriers shall be placed around all trees to be retained on the site in accordance with the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) "Tree Preservation During Land Development" guidance to prevent the destruction or damaging of the trees. No disturbance or addition of soil will be made within the umbrella or drip line of retained trees. Any clearing within the umbrella or drip line of such trees shall be done with utmost care and avoid the use of heavy machinery. Prior to any land-clearing activity, a visual inspection of the site will be made by the Building Official and the Landscape Officer before a land-clearing permit is issued. The land-clearing permit must be posted on-site. Only land-clearing is permitted ~~within~~ outside the drip line of the tree to be protected.

(2) On-site protection of trees may be barriers consisting of two-by four-inch lumber or flag rope and stakes visible to workers and equipment operators, but far enough from the tree to prevent soil compaction and large enough to include the area within the drip line of the tree ~~(drip line refers to the outer edges of tree limbs and branches).~~

(3) Should a deep filling around a tree be necessary, a dry well, retaining wall or terracing may be required. Procedures for these are available in the site planning and tree protection regulations available at the County Extension Office.

(b) Attachments to tree. No attachments or wires other than those of a protective nature shall be attached to any tree.

(c) Tree survival. Trees must survive on-site in a viable condition for a minimum of three (3) years after the final building inspection or certificate of occupancy is issued, or after a permit is granted for any tree replacement otherwise. Trees failing to meet this survival requirement must be replaced within 45 days after a written notification of code violation is ~~received by the property owner from the town~~ issued by the Town. Replacement trees must be tagged or indicated on the as built plans on file with the Town and reinspected for continued viability annually for three (3) years by Code Enforcement.

(d) Landscaping prohibition. Plants included on the current Florida Noxious Weed list – Rule 5B-57.007 in Florida Administrative Code.

(` 75 Code, § 22-21) (Ord. 75-3, passed 5-27-75; Am. Ord. 87-13, passed 9-22-87; Am. Ord. 2017-05, adopted 12-20-17)

§ 9A-9. TREES ON PUBLIC LANDS.

No tree shall be removed from any public park or public right-of-way except under the provisions of this article.

(` 75 Code, § 22-23) (Ord. 75-3, passed 5-27-75; Am. Ord. 2017-05, adopted 12-20-17)

§ 9A-10. ~~VARIATIONS TO LANDSCAPE REQUIREMENTS-EXCEPTIONS.~~

(a) In the event that any tree shall be determined to pose an unacceptable risk as provided for in § 9A-4 or to be in a hazardous or dangerous condition so as to endanger the public health, welfare or safety and requires immediate removal without delay such tree may be removed without first obtaining a written permit as herein required.

(b) During a period of emergency, such as a hurricane, tropical storm, flood, or any other act of God, the requirements of this Article may be waived by the Town Commission.

(c) All licensed plant or tree nurseries shall be exempt from the terms and provisions of this Article only in relation to those trees planted and growing on the premises of the licensee, which are so planted and growing for sale or intended sale to the general public in the ordinary course of the licensee's business.

(d) The types of trees included on the current Florida Noxious Weed List and Florida Exotic Pest Council's List of Invasive Plant Species shall be exempt from the terms and provisions of this article and shall not be used to meet any replacement or planting requirements. A copy of the Florida Invasive Species Council List of Invasive Plant Species will be available from the Town code enforcement.

(` 75 Code, § 22-22) (Ord. 75-3, passed 5-27-75; Am. Ord. 87-13, passed 9-22-87; Am. Ord. 2017-05, adopted 12-20-17; Am. Ord. 2023-01, adopted 3-15-23)

§ 9A-11. RESERVED.

§ 9A-12. PENALTY.

The improper removal of each tree shall constitute a separate offense under this chapter. Violation of this chapter and imposition of the penalty shall be determined and imposed by the Code Enforcement Special Magistrate or by a court of proper jurisdiction.

Removal of any mature oak or similar trees without first obtaining a permit from the Town as required in § 9A-4 shall constitute prima facie evidence of a violation which is irreparable or irreversible in nature for the purposes of enhanced fine assessment provided for in § 11-21(b)(1) or as otherwise amended. Photography (either ground, aerial, or geospatial) or other applicable data may be used as prima-facie evidence of the existence of trees on a site prior to any unapproved removal.

(` 75 Code, § 22-25) (Ord. 75-3, passed 5-27-75; Am. Ord. 87-13, passed 9-22-87; Am. Ord. 2017-05, adopted 12-20-17; Am. Ord. 2023-01, adopted 3-15-23)

§§ 9A-13.–9A-99. RESERVED.

§ 9A-13. NUISANCE TREES.

a. The following trees are considered non-native, noxious, invasive species and property owners shall remove all such trees from the properties they own within the Town consistent with this chapter or upon notification by the Town of a code violation.

- Brazilian pepper (Schinus terebinthifolius)
- Melaleuca (Melaleuca quinquenervia)
- Australian pine (Causarina equisetifolia)
- Carrotwood (Cupaniopsis anacardioides (A. Rich.) Radlk)
- Scefflera (Schefflera digitata)

§ 9A-14. LIST OF FLORIDA NATIVE TREES AND PLANTS.

LEGEND

+ Cold tolerant

- Cold intolerant

PROTECTED TREES	
Common Name	Scientific Name
Gumbo limbo	Bersera simaruba
Laurel oak	Quercus hemisphaerica
Live oak	Quercus virginiana
Longleaf pine	Pinus palustris
Magnolia	Magnolia grandiflora
Sand live oak	Quercus geminata
Slash pine	Pinus elliottii

GRASSES				
Common Name	Scientific Name	Cold Tolerance		
Beach Grass	Panicum Amarulum	-	-	+
Muhly Grass	Muhlenbergia Capillaris	-	+	-
Seashore Dropseed	Sporobolus Virginicus	-	+	-
Dwarf Fakahatchee	Tripsacum floridanum	-	-	+
Salt meadow cord grass	Spartina Patens	+	-	-
Smoth Cord Grass	Spartina Alteriflora	-	-	+
Salt grass	Distichlis Spicata	-	+	-
Sand Cord grass	Spartina Bakeri	+	-	-
Eastern Gama Grass	Tripsacum Dactyloides	-	+	-
Love grass	Eragrotis spectabilis	-	-	+
Blue-eyed grass	Sisyrinchium atlanticum	+	-	-

GROUND COVER				
Common Name	Scientific Name	Cold Tolerance		
Adams Needle	Yucca Filamentosa	-	+	-
Beach Elder	Iva Imbricata	-	-	+
Bracken Fern	Pteridium Aquilinum	-	-	+
Coontie/Arrowroot	Integrifolia, Angustifolia	-	+	-
Coontie/Arrowroot	Zamia Floridana, Pumilia	-	+	-
Florida Beargrass	Nolina Atopocarpa	-	-	+
Florida Beargrass	Nolina Brittoniana	-	-	+
Glaswort	Salicornia Spp Native	-	-	+
Golden Creeper	Ernodea Littoralis	-	-	-
Gopher Apple	Licania Michauxii	-	-	+
Penny Royal	Piloblephis Rigida	-	-	+
Prickly Pear	Opuntia Humifusa Compressa	-	+	-
Prickly Pear	Opuntia Stricta	-	+	-

<u>Rosemary</u>	<u>Creatiola Erocoides</u>	-	-	+
<u>Runner Oak</u>	<u>Quercus Pumila</u>	-	+	-
<u>Sea Oats</u>	<u>Uniola Paniculata</u>	-	+	-
<u>Spanish Dagger</u>	<u>Yucca Aloifolia</u>	+	-	-
<u>St Johns Wort</u>	<u>Hypericum Spp</u>	-	+	-

<u>LARGE TREES</u>				
Common Name	Scientific Name	Cold Tolerant		
<u>Bald cypress</u>	<u>*Taxodium distichum</u>	-	-	+
<u>False dogwood or southern soapberry</u>	<u>Sapindus saponarina</u>	-	-	+
<u>Gumbo limbo</u>	<u>Bersera simaruba</u>	-	-	-
<u>Laurel oak</u>	<u>Quercus hemisphaerica</u>	-	+	-
<u>Live oak</u>	<u>Quercus virginiana</u>	-	-	+
<u>Magnolia</u>	<u>Magnolia grandiflora</u>	-	-	+
<u>Sand live oak</u>	<u>Quercus geminata</u>			
<u>Slash pine</u>	<u>Pinus elliottii</u>	-	-	+
<u>Soapberry</u>	<u>Sapindus marginatus</u>	-	-	+
<u>* Commercial applications around retention areas</u>				

<u>MEDIUM TREE</u>				
Common Name	Scientific Name	Cold Tolerant		
<u>American elm</u>	<u>Ulmus americana</u>	-	+	-
<u>Black ironwood</u>	<u>Krugiodendron ferreum</u>	-	-	-
<u>Black mangrove</u>	<u>Avicennia germinans</u>	-	+	-
<u>Blolly</u>	<u>Guapira discolor</u>	-	-	-
<u>Cherry laurel</u>	<u>Prunus caroliniana</u>	-	-	+
<u>Dahoon holly</u>	<u>Ilex cassine</u>	-	-	+
<u>Florida maple</u>	<u>Acer saccharum</u>	-	+	-
<u>Green buttonwood</u>	<u>Conogarpus erectus</u>	-	-	-
<u>Mastic tree</u>	<u>Mastichodendron foetidissimum</u>	-	-	-
<u>Persimmon</u>	<u>Diospyros virginiana</u>	-	-	+
<u>Pigeon</u>	<u>Coccoloba diversifolia</u>	-	-	-
<u>Pignut hickory</u>	<u>Carya glabra</u>	-	+	-
<u>Red bay</u>	<u>Persea borbonia</u>	+	-	-
<u>Red mangrove</u>	<u>Rhizophora mangle</u>	-	-	-
<u>Red maple</u>	<u>Acer rubrum</u>	-	-	+
<u>Sand pine</u>	<u>Pinus clausa</u>	-	-	+
<u>Satin leaf</u>	<u>Chrysophyllum oliveforme</u>	-	-	-

Scrub hickory	<u>Carya floridana</u>	-	<u>+</u>	-
Silk Bay	<u>Persea humilis</u>	-	-	<u>+</u>
Southern red cedar	<u>juniperis silicicola</u>	-	-	<u>-</u>
Swamp bay	<u>Persea pustris</u>	-	-	<u>+</u>
Winged elm	<u>Ulmus alata</u>	-	-	<u>+</u>

<u>PALMS</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Cold Tolerant</u>		
<u>Cabbage palm</u>	<u>Sabal Palmetto</u>	-	<u>+</u>	-
<u>Florida silver palm</u>	<u>Cocco thrinax-argentata</u>	-	<u>-</u>	-
<u>Parotis palm</u>	<u>Acoelorrhaphe wrightii</u>	-	<u>+</u>	-
<u>Royal palm</u>	<u>Roystonea elata</u>	-	<u>-</u>	-

<u>SHRUBS</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Cold Tolerance</u>		
<u>Firebush</u>	<u>Hamelia patens</u>	-	<u>-</u>	-
<u>Simpson stopper</u>	<u>Myrcianthes simpsonii</u>	<u>+</u>	-	-
<u>White stopper</u>	<u>Eugenia axillaris</u>	-	<u>+</u>	-
<u>Salt bush</u>	<u>Baccharis halimifolia</u>	-	-	<u>+</u>
<u>Myrtle oak</u>	<u>Quercus myrtifolia</u>	-	-	<u>+</u>
<u>Running oak</u>	<u>Quercus pumila</u>	-	<u>+</u>	-
<u>Wild lime</u>	<u>Zanthoxylum fagara</u>	-	-	<u>+</u>
<u>Beauty berry</u>	<u>Callicarpa americana</u>	-	-	<u>+</u>
<u>Blueberry</u>	<u>vaccinium native sp</u>	-	-	<u>+</u>
<u>Carolina aster</u>	<u>Aster carolinanus</u>	-	<u>+</u>	-
<u>Cassia</u>	<u>Cassia ligustrina</u>	-	<u>-</u>	-
<u>Cassia</u>	<u>Cassia chapmanii</u>	-	<u>-</u>	-
<u>Christmas berry</u>	<u>Lycium carolinianum</u>	-	<u>+</u>	-
<u>Coral bean</u>	<u>Erythrina herbacea</u>	-	-	<u>+</u>
<u>Dwarf live oak</u>	<u>Quercus minima</u>	-	<u>+</u>	-
<u>Fetter bush</u>	<u>Lyonia Lucida</u>	-	-	<u>+</u>
<u>Florida privet</u>	<u>Foresteria segretata</u>	-	-	<u>+</u>
<u>Frostweed</u>	<u>Verbesina virginica</u>	-	-	<u>+</u>
<u>Lantana</u>	<u>Lantana depressa</u>	<u>+</u>	-	-
<u>Lantana</u>	<u>Lantana involucrata</u>	-	<u>+</u>	-
<u>Marlberry</u>	<u>Ardisia escallonioides</u>	-	-	<u>+</u>
<u>Marsh elder</u>	<u>Iva imbricata</u>	-	-	<u>-</u>
<u>Necklace pod</u>	<u>Sophora tomentosa</u>	-	-	<u>-</u>
<u>Needle palm</u>	<u>Rhapidophyllum hystrix</u>	-	<u>+</u>	-
<u>Saw palmetto</u>	<u>Serenoa repens</u>	-	<u>+</u>	-

<u>Small privet</u>	<u>Foresteria pinetorum</u>	-	-	+
<u>Snow berry</u>	<u>Chiococca alba</u>	-	+	-
<u>Staggerbush</u>	<u>Lyonia ferruginea</u>	-	+	-
<u>Staggerbush</u>	<u>Lyonia fruticosa</u>	-	+	-
<u>Walters viburnum</u>	<u>Viburnum obovatum</u>	-	-	+
<u>Wax myrtle</u>	<u>Myrcia cerifera</u>	-	+	-
<u>Wild coffee</u>	<u>Psychotria nervosa</u>	-	-	-
<u>Wild coffee</u>	<u>Psychotria sulzneria</u>	-	-	-

SMALL TREES

<u>Common Name</u>	<u>Scientific Name</u>	<u>Cold Tolerant</u>		
<u>American holly</u>	<u>Ilex opaca</u>	-	-	-
<u>Chapman oak</u>	<u>Quercus Chapmanii</u>	-	-	+
<u>Coco plum</u>	<u>Chrysobalanus icaco</u>	-	-	-
<u>Fiddlewood</u>	<u>Citharexylum fruticosum</u>	-	-	-
<u>Firebush</u>	<u>Hamelia patens</u>	-	-	-
<u>Florida privet</u>	<u>Forestiera segregata</u>	-	-	+
<u>Guiana plum</u>	<u>Drypetes lateriflora</u>	-	-	-
<u>Inkwood</u>	<u>Exothea paniculata</u>	-	-	-
<u>Jamaica caper</u>	<u>Capparis cyanophallophora</u>	-	-	-
<u>Lancewood</u>	<u>Nectandra coriacea</u>	-	-	-
<u>Limber caper</u>	<u>Capparis flexuosa</u>	-	-	-
<u>Myrtle oak</u>	<u>Quercus myrti Folia</u>	-	-	+
<u>Myrsine</u>	<u>Myrsine floridana</u>	-	-	-
<u>Salt bush</u>	<u>Baccharis halimifolia</u>	-	-	+
<u>Sand live oak</u>	<u>Quercus geminata</u>	-	-	+
<u>Scrub oak</u>	<u>Quercus inopino</u>	-	+	-
<u>Sea grape</u>	<u>Coccoloba uvifera</u>	-	-	-
<u>Simpson stopper</u>	<u>Myrcianthes simpsonii</u>	+	-	-
<u>Southern sumac</u>	<u>Rhus copallina</u>	-	+	-
<u>Spanish stopper</u>	<u>Eugenia foetida</u>	-	-	-
<u>Sweet acacia</u>	<u>Acacia farnesiana</u>	-	+	-
<u>Tough bumelia</u>	<u>Bumelia tenax</u>	-	+	-
<u>Varnish leaf</u>	<u>Dodonaea viscosa</u>	-	-	-
<u>Wax Myrtle</u>	<u>Myrica cerifera</u>	-	+	-
<u>White mangrove</u>	<u>Laguncularia racemosa</u>	-	-	-
<u>White stopper</u>	<u>Eugenia axillaris</u>	-	+	-
<u>Wild lime</u>	<u>Zanthoxylum fagara</u>	-	-	+
<u>Yaupon holly</u>	<u>Ilex vomitoria</u>	-	-	+

<u>VINES</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Cold Tolerant</u>		
<u>Beach Bean</u>	<u>Canavalia Obtusifolia</u>	-	-	-
<u>Beach Morning Glory</u>	<u>Ipomea Stolonifera</u>	-	-	-
<u>Coral honeysuckle</u>	<u>Lonicera Sempervire</u>	-	-	+
<u>Corky stem passion vine</u>	<u>Passiflora Suberosa</u>	-	-	-
<u>Grapes</u>	<u>Vitis Native Spp</u>	-	+	-
<u>Gray Nickerbean</u>	<u>Caesalpinia Bonduc Crista</u>	-	-	-
<u>Maypop</u>	<u>Passiflora incarnata</u>	-	-	-
<u>Morning Glory</u>	<u>Ipomea Spp</u>	-	+	-
<u>Railroad Vine</u>	<u>Ipomea pes-caprae</u>	-	-	-
<u>Virginia Creeper</u>	<u>Parthenocissus Quinque Folia</u>	-	+	-

<u>WILDFLOWERS</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Cold Tolerant</u>		
<u>Beach Croton</u>	<u>Croton Punctatus</u>	-	+	-
<u>Beach Sunflower</u>	<u>Helianthus Debilis</u>	-	+	-
<u>Beach Verbenia</u>	<u>Verbenia Maritima</u>	-	+	-
<u>Black eyed susan</u>	<u>Rudbeckia hirta</u>	+	-	-
<u>Blazing Star</u>	<u>Liatris Tenufolia</u>	-	+	-
<u>Blue Curl</u>	<u>Trichostema Dichotomum</u>	-	+	-
<u>Blue Eyed Grass</u>	<u>Sysyrinchium Atlanticum</u>	+	-	-
<u>Firewheel</u>	<u>Gaillardia Pulchella</u>	-	-	+
<u>Goldenrod</u>	<u>Solidago Spp</u>	-	-	+
<u>Horse Mint</u>	<u>Monarda Puncata</u>	-	-	+
<u>Partridge Pea</u>	<u>Cassia Spp</u>	-	+	-
<u>Pink Purslane</u>	<u>Portulaca Pilosa</u>	-	+	-
<u>Purslane</u>	<u>Portulaca Rubricaulis</u>	-	-	+
<u>Sea Oxide Daisy</u>	<u>Borrichia Spp</u>	-	+	-
<u>Sea Purslane</u>	<u>Sesuvium Portula Castrum</u>	-	+	-
<u>Seaside Evening Primrose</u>	<u>Oenothera Humifusa</u>	-	+	-
<u>Seaside Gentian</u>	<u>Eustoma Exaltatum</u>	-	+	-
<u>Spider Lily</u>	<u>Hymenocallis Latifolia</u>	-	+	-
<u>St. Johns Wort</u>	<u>Hypericum Spp</u>	+	-	-
<u>Standing Cypress</u>	<u>Ipomopsis Rubra</u>	-	+	-
<u>Tampa Verbenia</u>	<u>Verbenia Tempensis</u>	-	+	-
<u>Tropical Sage</u>	<u>Salvia Coccinea</u>	-	+	-
<u>Twin Flower</u>	<u>Dyschoriste Spp</u>	-	-	-
<u>Wild Cotton</u>	<u>Gossypum Hirsutum</u>	-	-	-
<u>Wild Petunia</u>	<u>Ruellia Caroliniensis</u>	-	-	+

<u>Wild Plumbago</u>	<u>Plumbago Scandens</u>	-	+	-
<u>Yellow Top</u>	<u>Flaveria Linearis</u>	-	+	-

Legend

<u>A</u>	<u>Aquatic</u>
<u>G</u>	<u>Ground cover</u>
<u>GR</u>	<u>Grass</u>
<u>LT</u>	<u>Large tree: average mature height over 60 feet</u>
<u>MT</u>	<u>Medium tree: average mature height over 20 feet</u>
<u>P</u>	<u>Palm</u>
<u>S</u>	<u>Shrub</u>
<u>ST</u>	<u>Small tree: average mature height of at least ten feet and less than 20 feet</u>
<u>V</u>	<u>Vine</u>
<u>W</u>	<u>Wildflower</u>

DAMP TO WET AREA PLANTS					
-	Common Name	Scientific Name	-	-	Cold Salt
<u>W</u>	<u>Alligator lily</u>	<u>Hymenocallis palmeri</u>	-	-	- <u>+</u>
<u>G</u>	<u>Batis</u>	<u>Batis maritima</u>	-	-	<u>+</u> <u>+</u>
<u>S</u>	<u>Beauty berry</u>	<u>Callicarpa americana</u>	-	-	<u>+</u> <u>+</u>
<u>GR</u>	<u>Blue eyed grass</u>	<u>Sisyrinchium atlanticum</u>	<u>+</u>	<u>+</u>	- -
<u>W</u>	<u>Blue flag iris</u>	<u>Iris hexagona</u>	-	-	- -
<u>W</u>	<u>Bushy aster</u>	<u>Aster dumosus</u>	-	-	<u>+</u> -
<u>W</u>	<u>Canna lily</u>	<u>Canna flacida</u>	-	-	- -
<u>S</u>	<u>Buttonbush</u>	<u>Cephalanthus occidentalis</u>	-	<u>+</u>	- -
<u>W</u>	<u>Cardinal flower</u>	<u>Lobelia cardinalis</u>	<u>+</u>	-	- -
<u>V</u>	<u>Climbing aster</u>	<u>Aster carolinianus</u>	-	<u>+</u>	- -
<u>S-ST</u>	<u>Coastal plains willow</u>	<u>Salix caroliniana</u>	-	<u>+</u>	<u>+</u> -
<u>W</u>	<u>Coreopsis</u>	<u>Coreopsis leavenworthii</u>	-	<u>+</u>	<u>+</u> -
<u>ST</u>	<u>Dahoon holly</u>	<u>Ilex cassine</u>	-	-	<u>+</u> <u>+</u>
<u>A</u>	<u>Duck potato</u>	<u>Sagittaria sp</u>	-	-	<u>+</u> <u>+</u>
<u>GR</u>	<u>Eastern gamma grass</u>	<u>Tripsacium dactyloides</u>	-	<u>+</u>	<u>+</u> -
<u>S</u>	<u>Elderberry</u>	<u>Sambucus canadensis</u>	-	-	<u>+</u> -
<u>S</u>	<u>Gallberry</u>	<u>Ilex glabra</u>	-	-	<u>+</u> <u>+</u>
<u>WF</u>	<u>Goldenrod</u>	<u>Solidago sp.</u>	-	-	<u>+</u> -

<u>S</u>	<u>Hibiscus</u>	<u>Hibiscus coccinea or grandiflora</u>	-	-	+	-
<u>G</u>	<u>Lemon bacopa</u>	<u>Bacopa caroliniana</u>	-	+	+	-
<u>MT</u>	<u>Loblolly bay</u>	<u>Gordonia lasianthus</u>	-	-	+	-
<u>ST</u>	<u>Mangroves</u>	-	-	-	+	+
<u>W</u>	<u>Narrow-leafed sunflower</u>	<u>Helianthus angustifolius</u>	+	+	-	-
<u>A</u>	<u>Pickeralweed</u>	<u>Pontederia cordata</u>	-	-	+	+
<u>W</u>	<u>Rayless sunflower</u>	<u>Helianthus radula</u>	-	+	-	-
<u>P</u>	<u>Sabal palm</u>	<u>Sabal palmetto</u>	-	-	+	+
<u>G</u>	<u>Sand Cordgrass</u>	<u>Spartina bakeri</u>	+	-	-	-
<u>G</u>	<u>Sandweed</u>	<u>Hypericum fasciculatum</u>	-	+	+	-
<u>W</u>	<u>Sea ox-eye daisy</u>	<u>Borrichia frutescens</u>	-	+	+	-
<u>W</u>	<u>Sea purslane</u>	<u>Sesuvium portulacastrum</u>	-	+	+	-
<u>W</u>	<u>Seaside gentian</u>	<u>Eustoma exaltaum</u>	-	+	+	-
<u>A</u>	<u>Soft rush</u>	<u>Juncus effusus</u>	-	-	+	+
<u>W</u>	<u>Spiderwort</u>	<u>Tradescantia ohiensis</u>	-	-	+	+
<u>G</u>	<u>St. Andrews cross</u>	<u>Hypericum hypericoides</u>	-	+	+	-
<u>G</u>	<u>Sunshine Mimosa</u>	<u>Mimosa strigillosa</u>	-	-	+	+
<u>W</u>	<u>Swamp Milkweed</u>	<u>Asclepias incarnata</u>	-	-	+	+
<u>MT</u>	<u>Sweet bay</u>	<u>Magnolia virginica</u>	-	+	+	-
<u>W</u>	<u>Vanilla plant</u>	<u>Carphephorus paniculatus</u>	-	+	+	-
<u>W</u>	<u>Violets</u>	<u>Viola affinis</u>	-	-	-	-
<u>G</u>	<u>Water dropwort</u>	<u>Oxypolis filiformis</u>	-	+	+	-
<u>G</u>	<u>Water hyssop</u>	<u>Bacopa monnieri</u>	-	+	+	-
<u>W</u>	<u>Yellowtop</u>	<u>Flaveria linearis</u>	-	+	+	-
<u>G</u>	<u>Glaswort</u>	<u>Salicornia spp</u>	-	-	+	+
-	<u>Leather fern</u>	<u>Acrostichum dandeifolium</u>	-	-	+	-
<u>S</u>	<u>Saltmarsh mallow</u>	<u>Kosteletzkaya virginica</u>	-	+	+	-
<u>LT</u>	<u>Bald cypress</u>	<u>Taxodium distichum</u>	-	-	+	+

Plants approved for use along the 4RM AND 5RMO.	
Common Name	Scientific Name
<u>Indian Hawthorne</u>	<u>Rhaphiolepis Indica "Alba"</u>
<u>Juniper—Parsoni</u>	<u>Juniperus chinensis "Parsonii"</u>
<u>Juniper—Torulosa</u>	<u>Juniperus chinensis "Torulosa"</u>
<u>King Sago</u>	<u>Cycas Revoluta</u>
<u>Buttonwood Green</u>	<u>Conocarpus erectus</u>

Buttonwood Silver	Conocarpus erectus sericeus
Cord Grass	Spartina Bakeri
Necklace Pod	Sophora Tomentosa
Bird of Paradise	Strelitzia Reginae
Elaeagnus	Elaeagnus pungens
Arbicola	Schefflera Arboricola
Coco Plum	Chrysobalanus Icaco
Natal Plum	Carissa Macrocarpa
Pittosporum Green/Varigated	Pittosporum tobira
Palmetto	Sabal Palmetto
Madagascar Olive	Norohnia Emarginata
Sea Oats	Uniola Paniculata
Gallardia	Gaillardia pulchella
Coontie	Zamia Pumila
Zamia	Zamia Maritima
Confederate Jasmine	Trachelospermum Jasminoides
Pindo Palm	Butia Capitat
Cabbage Palm	Sabal palmetto
Sprengeri Fern	Asparagus densiflorus
Fiddlewood	Citharexylum spinosum
Dune Sunflower	Helianthus Debilis
Gazania Daisey	Gazania

The following plants may be used along the 4RM AND 5RMO if protected from the direct wind and salt spray:

Common Name	Scientific Name
Liriope	Liriope "Evergreen Giant"
Oleander Dwarf/Standard	Nerium oleander
Ligustrum	Ligustrum Lucidum
Florida Privet	Forestiera Segregata
Yaupon—Weeping	Ilex vomitoria pendula
Walter's Viburnum	Viburnum Obovatum
Podocarpus	Podocarpus macrophyllus
Ilix Schillings	Ilex vomitoria "Stokes Dwarf"
Ixora	Ixora
Jatropha	Jatropha
European Fan Palm	Chamaerops Humilis
Coconut Palm	Cocos nucifera
Hibiscus	Hibiscus
Snow Bush	Breyneia Disticha

Simpson's Stopper	Myrcianthes Fragrans
Croton	Codiaeum Variegatum
Allamanda	Allamanda cathartica
Agapanthus	Agapanthus arfricanus
Blue Daze	Evolvulus glomeratus
Hibiscus	Hibiscus
East Palatka Holly	Ilex attenuata "East Palatka"
Geiger Tree	Cordia sebestena
Foxtail Palm	Wodyetia bifurcata
Bismarkia Palm	Bismarckia nobilis
Paurotis Palm	Acoelorrhaphe wrightii
Fountain Grass	Pennisetum setaceum
Crinum Lily	Crinum lily
Society Garlic	Tulbaghie violacea
Indian Hawthorne	Raphiolepis Indica "Alba"
Juniper—Parsoni	Juniperus chinensis "Parsonii"
Juniper—Torulosa	Juniperus chinensis "Torulosa"
King Sago	Cycas Revoluta
Buttonwood Green	Conocarpus erectus
Buttonwood Silver	Conocarpus erectus sericeus
Cord Grass	Spartina Bakeri
Necklace Pod	Sophora Tomentosa
Bird of Paradise	Strelitzia Reginae
Elaeagnus	Elaeagnus pungens
Arbicola	Schefflera Arboricola
Coco Plum	Chrysobalanus Icaco
Natal Plum	Carissa Macrocarpa
Pittosporum Green/Varigated	Pittosporum tobira
Palmetto	Sabal Palmetto
Madagascar Olive	Norohnia Emarginata
Sea Oats	Uniola Paniculata
Gaillardia	Gaillardia pulchella
Coontie	Zamia Pumila
Zamia	Zamia Maritima
Confederate Jasmine	Trachelospermum Jasminoides
Pindo Palm	Butia Capitat
Cabbage Palm	Sabal palmetto
Sprenger Fern	Asparagus densiflorus
Fiddlewood	Citharexylum spinosum

<u>Dune Sunflower</u>	<u>Helianthus Debilis</u>
<u>Gazania Daisey</u>	<u>Gazania</u>

ARTICLE I. WETLANDS PROTECTION

§ 11A-1. PURPOSE AND INTENT.

The purpose of this chapter is to protect, preserve and enhance the natural functions of wetlands and other environmentally sensitive areas. It is also the intent of this article to apply the following standards for development in and adjacent to wetlands.

(Am. Ord. 2017-05, adopted 12-20-17)

§ 11A-2. GENERAL PROVISIONS.

(a) During the review of a site plan or any other plan for development, the Town Manager shall use the Natural Wetlands Inventory maps, the Brevard County Soil Survey, the Town Comprehensive Plan, aerial photography or other applicable data in order to determine the potential existence of wetlands on or adjacent to the site.

(b) If a review of the above documents indicates that wetlands may exist on or adjacent to the site, the Town manager or designee shall contact the appropriate authorities listed in section 11A-2(c) to perform verification of wetland determination and provide guidance on wetlands permit requirements. an inspection will be performed by the Town Manager.

(c) Based on the assessment of the above site visit, the Town Manager may require the developer to property owner shall have the site inspected by a representative from the St. Johns River Water Management District for a determination of jurisdictional limits of the site. This may require the involvement of the Army Corps of Engineers, the Department of Environmental Regulation and the Department of Natural Resources.

(d) No building permit will be issued by the Town until either the site plan has been approved or an exemption letter has been issued by the applicable environmental agency.

(e) All proposed development adjacent to canals, the Indian River and east of State Road A1A will automatically be reviewed under the above process.

(Am. Ord. 2017-05, adopted 12-20-17)

§ 11A-3. PERMITTED USES IN WETLANDS.

The following uses shall be permitted in wetlands provided that they are approved by the St. Johns River Water Management District or the applicable environmental agency:

- (1) Open space;
- (2) Fish and wildlife management;
- (3) Recreation; or

(4) Any other use deemed appropriate by the St. Johns River Water Management District or the Department of Natural Resources.

(Am. Ord. 2017-05, adopted 12-20-17)

§ 11A-4. PROHIBITED USES IN WETLANDS.

The following uses are specifically prohibited in wetlands:

- (1) Residential, commercial, industrial and institutional uses, except as provided for in § 1A-3;
- (2) Disposal of solid or liquid wastes, and the application or storage of pesticides and herbicides; and
- (3) Any activity which impairs the function of the wetlands.

(Am. Ord. 2017-05, adopted 12-20-17)

§§ 11A-5. – 11A-99. RESERVED.

Recommendation to: Town Commission 2-19-25

From: Planning & Zoning Board

Subject: Tree cutting & replacement ordinance

Issue—current ordinance calls for a tree for tree replacement on the house tear-down and rebuild lots (Sec. 9A-7(c). This has proven to be impractical given the substantial increase in footprint of the new home. Maintaining the same tree density before and after construction was also deemed impractical for the same reason.

History—Chapter 9A: Landscape and Trees was modified in March of 2023 as it relates to tree retention. The before and after of this modification is as follows.

Before; (1) minimum of three trees must exist (9A-7 (a)).

(2) tree density after construction must be equal or greater than pre-construction (9A-6 (b)(2)).

After; (1) minimum of three trees was deleted.

(2) any tree removed must be replaced, tree for tree requirement (9A-7 (c)).

Community Survey--A drive by of new homes built on tear down lots prior to the March modifications demonstrated no lack of tree retention. The post construction landscapes' all have tree densities consistent with their neighboring homes and added to the goal of preserving and enhancing property values. See list below with tree estimates:

	<u>Number of Trees</u>
● 401 A1A	6+
● 404 Atlantic	8+
● 400 Banyan	10+
● 422 Sunset	12+
● 527 Sunset	13+
● 507 Sunset	13+
● 520 Sunset	7+
● 524 Sunset	15+
● 303 Riverside	10+
● 901 Riverside	9+
● 509 Third	16+
● 419 Ave B	16+
● 418 Ave B	25+
● 404 Ave B	17+
● 307 Ave B	16+
● 401 Ave A	10+
● 522 Ave A	14+
● 225 Fourth	14+
● 208 Second	5+
● 202 Second	12+
● 304 First	8+

Neighboring/similar communities tree removal ordinances:

- City of Melbourne (Sec 9.272 (b) (17), all trees located on properties with existing single dwellings are exempted from tree removal provisions.
- Winter Park (Sec 58-284 (a), palm trees are exempted from tree removal provisions.
- Satellite Beach (Sec. 30-702 (c) (1), permit required for removal of “protected tree”, may require relocation of tree. Protected tree not defined.
- Orange County (Sec 15-279) (8), trees located on single family lots are exempted from tree removal provisions.
- Indian Harbor (Sec 107.36) Definitions-- excludes palms from “protected tree”.
- Brevard County (Sec. 62-4334 (2), single family lots that are 1.25 acres or less are exempt.

Citizen input--Many citizens have spoken at Town Commission meetings about the need/desire to retain oak trees (Town Commission minutes). Other municipalities and counties reviewed reflected a desire to retain oak and other canopy trees where possible. Citizens have also voiced their desire to retain as many trees as possible (Town Commission minutes).

Melbourne Beach Comprehensive Plan-- “Periodically review, analyze, and amend, as determined necessary, the tree preservation and landscape ordinances to ensure that minimum standards are ***consistent with the desires of the community, are easily understood and enforceable***” (Policy 14.1).

Consideration of Environmental Advisory Board Proposal

On November 6, 2024 a joint workshop with the P&Z and EAB boards was held. The purpose of the workshop was to consider EAB suggested policies related to retention of mature native trees (see attached copy of EAB proposal).

The EAB proposal to exclude palm trees as meeting tree requirements and focus on native plants was seen by P&Z as going further than what was required. P&Z felt these further requirements might be better received as informational only to a new owner of a home being built.

Summary of findings

- The tree for tree replacement and maintenance of tree density requirements in many instances has proven to simply not be practical.
- A survey of post construction home sites prior to the tree for tree requirement revealed no lack of tree replacements.
- Sampled other communities did not have tree for tree or density requirements.
- Melbourne Beach citizens strongly desired the replanting of all Oak trees removed.
- The March of 2023 ordinance change went from a three (3) tree minimum replacement to an all-tree replacement. This resulted in an overcorrection and impractical provision.
- A finding of an eight (8) tree minimum with a requirement to replace oaks was considered the middle ground and one that could be practically applied and also be consistent with the Melbourne Beach comprehensive plan (policy 14.1)

Recommendations

Make the following change to the Chapter 9A: Landscape and Trees.

Section 9A-7 (C) Minimum Tree Plantings

Existing wording:

Minimum replacement standards for new construction. Any trees that are removed for new construction shall be replaced by the same or similar species. Specifically for mature oak trees replacement of one (1) similar species for each tree removed shall be required which at a minimum will attain an overall height of at least twelve feet (12') and have a trunk caliper of at least two inches (2") at planting, measured four and one-half feet (4.5') above grade.

Proposed new wording:

Minimum replacement standards for new construction. Prior to issuing a certificate of occupancy, the lot must have a minimum of eight (8) trees planted, to include palm trees. Any oak trees removed during construction must be replaced with another oak. The oak replacement trees at a minimum must be at an overall height of at least twelve (12) feet and have a trunk caliper of at least two (2) inches at planting, measured four and one-half (4.5) feet above grade. Any oaks replaced are to be counted towards the eight (8) tree minimum.

Section 9A-6 (b) (2) On-Site Inspection

Existing wording:

Relocation or replacement. As a condition to the granting of a permit, the applicant may be required, where practical, to relocate the tree being removed or be required to replace the tree being removed with tree somewhere within the site of the type that will attain an overall height of at least twelve feet (12') and have a trunk caliper of at least two inches (2") at planting, measured four and one-half feet (4.5') above grade. *The green areas left after all building and parking lot requirements have been met shall contain a tree density equal to or greater than the existing on the overall site before the beginning of construction.*

Proposed new wording (deletes last sentence re density):

Relocation or replacement. As a condition to the granting of a permit, the applicant may be required, where practical, to relocate the tree being removed or be required to replace the tree being removed with tree somewhere within the site of the type that will attain an overall height of at least twelve (12) feet and have a trunk caliper of at least two (2) inches at planting, measured four and one-half (4.5) feet above grade.

Planning and Zoning Meeting
Submittal from Environmental Advisory Board
November 6, 2024

Sections: 9A-2; 9A-6; 9A-7; 9A-8; 9A-10; 9A-12; 11A-2; 7A-31

Meeting Date: 11/12/24

From: Environmental Advisory Board

RE: Cutting down of mature native trees

Background Information:

We have observed many mature native trees being taken down, seemingly unnecessarily. Town residence have approached us to find out what is going on.

- Many clear-cut/nearly clear-cut lots around town.
- Two very old scrub oaks taken down at 322 Fourth Ave, on Oak St, taken down where a new fence was installed, though likely at least one of these extremely slow-growing native trees could have remained in part.
- Two very large oak trees removed at 314 Third Ave. (Owner stated this was for insurance reasons.)
- Several large oaks/gumbo limbos at ~506 Third Ave.
- Several mangroves have been removed north and south of the Third Avenue river access.

Recommendations:

9A-2

The intent of this article is to preserve trees whenever and wherever they exist and to provide trees wherever they are sparse or do not exist, thus enhancing the health, welfare and beautification of the Town.

- **More specifics on the benefits of trees like flood control, filters the air, reduce stormwater runoff etc.**
- **“intent to include encouragement of... ‘Florida Friendly Landscaping’ and ‘Florida Native Landscaping’ ”- Weak to have only the intuition written here and should be specified within specific sections.**

9A-6 (b) (1) a

The tree is located in a buildable area or yard where a structure or improvements may be placed where inability to remove the tree would unreasonably restrict the permitted

use of the property and the tree removal has been authorized by the Town as part of a site plan review

- **“where...improvements may be placed...” Is building a perimeter fence an acceptable reason for removal? Personal observation of two very, very old scrub oaks being taken down for a fence at 322 Fourth Avenue. Fence should be required to work around such growth that can not be replaced in many generations.**

9A-6 (b) (2)

Relocation or replacement. As a condition to the granting of a permit, the applicant may be required, where practical, to relocate the tree being removed or be required to replace the tree being removed with a tree somewhere within the site of the type that will attain an overall height of at least twelve feet (12') and have a trunk caliper of at two inches (2") at planting, measured four and one-half feet (4.5') above grade. The green areas left after all building and parking lot requirements have been met shall contain a tree density equal to or greater than that existing on the overall site before the beginning of construction.

- **2" caliper is weak and should be larger.**
- **Specify native trees where native or Florida friendly trees.**
- **Provide motivation for native trees (maybe with lesser size requirements).**

9A-7 (b) (7)

Replacement of landscaping material shall occur within 60 days, unless said time is extended by the Town Manager for good cause shown.

- **Short-term and long-term (year-out?) follow up with fines for not establishing and assuring replacement trees as code requires**

9A-7 (b) (10)

Clusters of three palms shall be an acceptable substitute for up to 50% of the required canopy trees and 50% of the required ornamental trees.

- **Too much emphasis on palms. Exclude palms as meeting tree requirements.**
- **Focus on oak or similar native replacements, which support a great amount of wildlife.**

9A-8 (a) (1)

Only land-clearing is permitted within the drip line of the tree to be protected. Tree survival. Trees must survive on-site in a viable condition. Trees failing to meet this

survival requirement must be replaced within 45 days after a written notification is received by the property owner from the town.

- **Who is checking to make sure the drip line is being protected during clearing?**

9A-10 (d)

The types of trees included on the current Florida Noxious Weed List and Florida Exotic Pest Council's List of Invasive Plant Species shall be exempt from the terms and provisions of this article and shall not be used to meet any replacement or planting requirements.

- **Is code enforcement very familiar with the lists above and can visually spot invasive or noxious weeds or have a reliable source in Town that they can consult?**

9A-12

The improper removal of each tree shall constitute a separate offense under this chapter. Violation of this chapter and imposition of the penalty shall be determined and imposed by the Code Enforcement Special Magistrate or by a court of proper jurisdiction.

- **Spell out the general fines as a deterrent. This is too vague and doesn't sound serious.**
- **Make violation fine amount significant enough such that they are not ignored.**

11A-2 (a)

During the review of a site plan or any other plan for development, the Town Manager shall use the Natural Wetlands Inventory maps, the Brevard County Soil Survey, the Town Comprehensive Plan, aerial photography or other applicable data in order to determine the potential existence of wetlands on or adjacent to the site.

11A-2 (b)

If a review of the above documents indicates that wetlands may exist on or adjacent to the site, an inspection will be performed by the Town Manager.

- **Is the Town Manager an expert in Wetlands evaluation?**

7A-31 through 35

- **Disallow zero-lot-line construction**

Additional suggestions:

- **Create a tree bank, where the money collected from fines for cutting mature native trees would be used toward new growth**
- **Require a 2 for 1 hard wood replacement requirement, given typical slow growth rate**
- **Provide special considerations (steeper fines?) for the removal of very old native species (e.g. scrub oak; native species great than specified size) which will be impossible to replace for many generations**
- **Increase the fines to a much larger amount to ensure native mature trees are properly protected.**
- **Allow the homeowner a scorecard – you can do some of this and some of that – to give some flexibility to get to the end goal**
- **Require the Town to have a tree survey completed every five years. This could be accomplished by aerial observation.**
- **Require the Town to have a certified arborist on staff or on contract to assist on decision making and to answer questions.**
- **Require a set percentage of plantings of trees and scrubs to be native to our area.**
- **Add landscape plan review before “clearing” and after, with, oversight, requiring the landscape beyond just the trees to be 50% native. Utilize and provide local resources for trees, plants, landscaping.**