





Environmental Advisory Board Recommendations to the Town of Melbourne Beach Commission

Regarding Code of Ordinances

Chapter 9A: Landscaping and Trees
Chapter 11A: Environmentally Sensitive Lands

WEDNESDAY, APRIL 2, 2025

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Environmental Advisory Board



Created by The Melbourne Beach Commission in 1992 to advise the Town Manager and the Town Commission on environmental matters...

Members

Curtis Bird
Leslie Maloney
Jamie Gulin
Karen Fenuaghy
Crystal Cain
Brent Washburn
Carol Crispin



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Unique Beauty of Melbourne Beach

Designated bird sanctuary



Grand old "Dolphin Tree"

Common goal: Protect our Legacy

- Preserve ecosystem
- Protect property values



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Environmental Advisory Board Suggested Approach

PRIORITY 1	PRIORITY 2	PRIORITY 3
Protect our legacy by preserving the native canopy	Enhance replacements when preservation not possible	Remove invasive species

These priorities support the existing Melbourne Beach Comprehensive Plan

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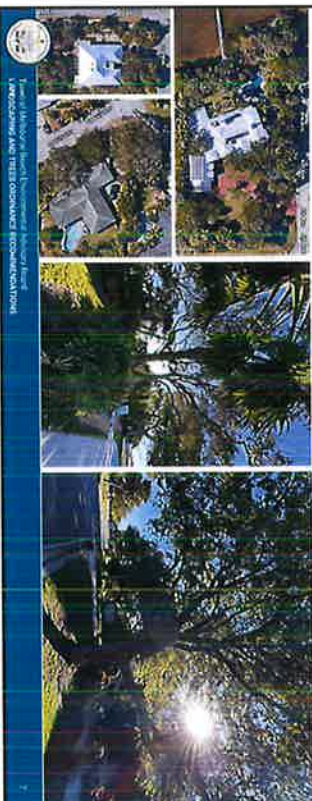
Melbourne Beach Existing Canopy



Melbourne Beach Existing Canopy

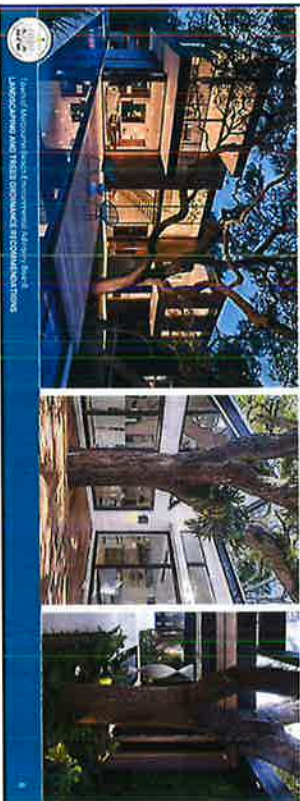


Melbourne Beach Existing Canopy



Modern Construction with Tree Preservation

Tree integration examples from Coconut Grove, FL and Austin, TX architectural firms



Canopy vs. Cleared Property



Melbourne Beach Unsustainable Construction



Melbourne Beach Unsustainable Construction



Sand Live Oaks

- Slow growing, up to 150 years to reach full height (up to 100 ft)
- Impressive drooping branches with dense canopy provide vital habitat
 - Eastern screech owl
 - woodpeckers, songbirds, insects, ibis, etc.
- Loss has significant ecological impact



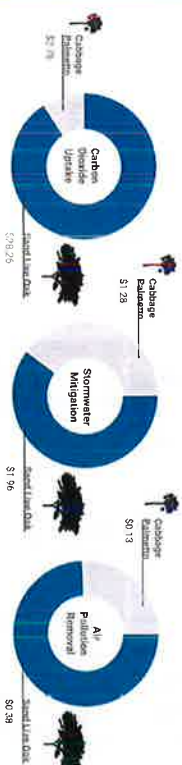
Other Canopy Benefits

- Absorb huge volumes of rainwater**
 - Reducing runoff to the Indian River, property erosion, and effects from flooding
- Provide shade**
 - Conserving energy, reducing glare, and making outdoor areas more comfortable
- Reduce ground-level wind speeds**
 - Reducing danger property damage
- Enhance the Town's attractiveness**
 - Increasing property values
- Reduce noise and surface water runoff**



Not All Trees are Created Equal

Comparison benefits for one 20" diameter Sand Live Oak versus one 20" diameter Cabbage Palmetto over 1 year.*



*Data was based on benefits of trees measured against a baseline of 100% for each category. The data is based on the following assumptions: 1. The trees are planted in a 10' x 10' area. 2. The trees are planted in a 10' x 10' area. 3. The trees are planted in a 10' x 10' area.

Environmental Advisory Board Suggested Approach

- | PRIORITY | PRIORITY | PRIORITY |
|--|---|-------------------------|
| 1 | 2 | 3 |
| Protect our legacy by preserving the native canopy | Enhance replacements when preservation not possible | Remove invasive species |

Town of Melbourne Beach Comprehensive Plan

In response to Florida SS 163 & SS 187

- POLICY 4.3:** "Maintain the Town's status as a bird sanctuary."
- POLICY 6.2:** "Protect the Town's natural resources."
- POLICY 10.6:** "Protect the Town's natural resources."
- POLICY 14.4:** "Protect the Town's natural resources."
- POLICY 14.5:** "Protect the Town's natural resources."
- OBJECTIVE 3.0:** "Protect the Town's natural resources."
- OBJECTIVE 14.0:** "Protect the Town's natural resources."

STATED GOAL
"Encourage the preservation of natural features in existing and future developments."



Priority 1: Where Possible Preserve the Native Canopy

PROBLEM: Removal of native canopy

- Redeveloped larger homes with developer preference to clear lot
- Valuable canopy unwittingly removed
- Addressing water management issues with swales reduce effective lot size

SOLUTION: Increase methods to maintain the existing trees

- Retain Landscape Officer
- Require on-site inspection prior to certificate of occupancy or issuance of tree removal permit
- Heighten measures for protecting retained trees during land clearing
- Require legacy tree removal requests be accompanied by a mitigation report

COST CONSIDERATIONS*

Cost: Pass through to homeowner
 Homeowner
 ~\$10,000 new build site
 Increased fee for some tree permits
 *excluding E&A fee and permit fees



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Priority 2: Enhance Replacements

Plant native canopy trees of size and native shrubbery

PROBLEM: Replacement trees are chiefly palm trees which lack support for wildlife biodiversity and provide little shade, wind shelter, noise block, or water runoff reduction.

SOLUTION: Require

- 1 canopy tree and 7 shrubs for each 2,000 sf of area, with a 70% native species requirement
- Replacement trees 4" thick at 4.5 inches above the ground
- 3-year tree survival or replaced, 3 year out inspection by code enforcement

COST CONSIDERATIONS

Homeowner
 Work with landscape architect to preserve native, where possible and install replacement trees.
 * Tree ~ \$400 per tree
 + Transportation
 + Installation



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Priority 3: Remove Invasive Species

PROBLEM: Many Invasive species outcompete/displace native plants

SOLUTION: Remove

- All invasive species during development and redevelopment
- High-damage invasive trees from all properties:
 - Austrian Pine
 - Brazilian Pepper
 - Carrotwood
 - Metaleuca
 - Schefflera

COST CONSIDERATIONS

Homeowner
 Cost could be significant depending on tree size
 Town should promote homeowners and explore ways to minimize costs, including:

- Provide awareness
- Allow time to reach gully
- Educate citizens

Invasive species are introduced plants and animals that cause harm to the environment, the economy, and/or human health. Often displacing native species, these invaders skew the delicate balance between animals, plants, and important processes such as water flow and fire – we!

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Looking Forward

We can build homes and live in harmony, support native habitat, and protect the Melbourne Beach legacy

- Extensive Benefits:**
 - Absorb huge volumes of rainwater
 - Provide shade
 - Reduce ground-level wind speeds
 - Enhance the Town's attractiveness and thereby property values
 - Reduce noise and surface water runoff
- Primary Measures Proposed:**
 - Preserve native canopy to the greatest extent possible
 - Enhance replacements when preservation not possible
 - Move towards invasive species removal
- Minimal burden to Town, passed through to homeowner

The E&A has hopes and stands ready to assist!




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EAB Thanks You!

Concerned Citizens

Melbourne Beach Town Commission, Staff, and Planning and Zoning Board

Satelite Beach, Indiantic, and Other Local Communities

University of Florida Institute of Food and Agricultural Services



University of Florida
Institute of Food and Agricultural Services
Melbourne Beach Town Commission, Staff, and Planning and Zoning Board
Satelite Beach, Indiantic, and Other Local Communities

EAB REQUIRED

OAK 12

SHRUBS 77

70% NATIVE

SWALE

GRAVEL DRIVEWAY

PAVERS

SWALE

POOL + PAVEMENT DECK

SWALE

PAVERS

SWALE

