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Red Mangroves "Walking"

### Introduction

This booklet is intended to assist coastal property owners in identifying, trimming, and altering mangrove trees in a manner that will:

- provide a view or navigational access;
- · protect valuable mangrove resources; and
- be in compliance with state statutes that regulate the trimming and alteration of mangroves.

Florida has three native species of mangroves: *red, black,* and *white.* While they can grow in freshwater, their physiological adaptations to life in salt water allow them to thrive and outcompete other freshwater species. Each species responds differently to trimming. Information on the identification and trimming tolerances of these species is provided in pages 7 through 12 of this booklet.

Florida mangroves are tropical to subtropical trees that are restricted to the calm, intertidal areas of Florida where temperatures do not drop below freezing for prolonged periods. They occur along all of Florida's coastlines, however, along the northern Gulf Coast red and black mangroves may occur as sparse, individual, short, shrubby plants.

Some benefits that mangroves provide to the environment are:

- · Habitat for estuarine and marine food webs;
- Assist with maintaining and improving the quality of our coastal waters;
- Their roots and trunks resist and prevent shoreline erosion;
- They can protect homes and property from severe wind damage.

Many property owners trim mangroves along their shorelines to obtain or enhance their view of the water. Unfortunately, if not done properly, trimming can harm or kill the mangroves. While this might maximize a view, many people do not realize that killing or harming mangroves can have many unintended adverse consequences to the benefits mangroves provide.

The Florida Marine Research Institute has reported up to 86% loss of mangroves in some areas of Florida since the 1940's. Trimming mangrove trees and shrubs into short hedges results in a loss of mangrove



**Great Egret standing on a Red Mangrove Tree** 

biomass and arboreal (forest canopy) habitat. With this loss has been a loss in fishery productivity, shoreline erosion, and the quality of many of our near shore waters.

The Florida Legislature enacted the 1996 Mangrove Trimming and Preservation Act (MTPA) in Sections 403.9321-403.9333 of the Florida Statutes (F.S.). This law regulates the trimming and alteration of mangroves statewide, with the exception of the Delegated Local Governments of Broward. Hillsborough, Miami-Dade, and Pinellas Counties, the City of Sanibel, and the Town of Jupiter Island.

A copy of the 1996 Mangrove Trimming and Preservation Act can be obtained from agency sources listed at the end of this booklet, as well as on The Florida Department of Environmental Protection's website (<a href="http://www.dep.state.fl.us/">http://www.dep.state.fl.us/</a>). While the MTPA recognizes a riparian 'right to view' in the Legislative Intent Section (S. 403.9323(3), F.S.), there are instances when waterfront property owners may not be able to legally obtain every desired view.

### **Before You Trim**

Shoreline owners have a unique opportunity to directly participate in the stewardship of Florida's marine environment by understanding that there are many ways that a reasonable view may be obtained without severely injuring or killing mangroves. Carefully choose your configuration and leave some areas of canopy intact to provide the valuable benefits of the local arboreal community.

Regulations: The heights to which a mangrove tree may be trimmed will depend upon the provisions of the MTPA as well as the species and condition of the tree. In most instances, mangroves may not be trimmed lower than 6 feet in height as measured from the substrate (ground surface) under the MTPA, except for certain government and utility oriented exemptions, and historically established and verified configurations. Reduction in height for larger trees will need to be conducted in stages over several years. Many large trees cannot legally be trimmed to 6 feet; this is mainly due to the tree's pre-trim canopy configuration. In no case may trimming result in defoliation (loss of most of the tree's leaves), destruction (death of part or all of the tree, including roots), or removal of a mangrove.



Windowed and hedge-trimmed Mangroves along shoreline and dock



Mangroves along homeowners' shoreline with rip rap.

Actions that result in defoliation, destruction, or removal of a mangrove are considered alteration.

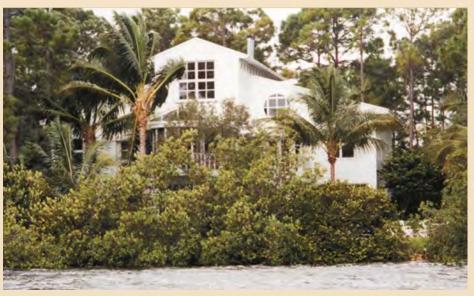
Projects that involve alterations, and trimming projects that exceed the allowances of the exemptions and general permits, may be authorized through individual permits in S. 403.9328 of the MTPA.

Trimming may be authorized in an Environmental Resource Permit (ERP) along with other ERP activities for the same property. Mangrove impacts associated with and located within the footprint of an ERP authorized activity do not require a separate authorization under the MTPA (S. 403.9328(5), F.S.).

**Compliance:** In all cases, the applicant, permittee, landowner, and person performing the trimming are jointly and severally liable for complying with the MTPA, unless evidence indicates otherwise. It is important for all parties involved to always take photos before and after any trimming activities occur to document pre- and post-trimming conditions.

## **Before You Trim—Continued**

**Professional Mangrove Trimmers (PMTs):** The 1996 MTPA identifies five types of persons who are considered to be PMTs in S. 403.9329(1), F.S., and has provisions in Sections 403.9329(2) & (7), F.S., for qualifying other persons as PMTs. PMTs are required to supervise and/or conduct certain types of trimming, and typically are the most qualified to perform trimmings in a manner that is least damaging to the mangroves. PMT status only reflects that the person met the statutory requirements. Property owners should always question their perspective trimmer on different trimming styles that maintain the health of the trees while still providing both a view, and privacy, if desired. Page 17 provides information on PMTs responsibility and how to locate PMTs for your area. Once your trees have been legally trimmed to the final height and/or configuration, maintaining the trimmed area can be conducted by anyone (S. 403.9326(1)(d), F.S.) Although a PMT is not required, if you hire a non-PMT landscaper make sure they only trim back to the final height or configuration legally attained. Also make sure they are using sharp tools and making clean cuts, to ensure the health and look of the mangroves.



Natural looking Mangroves and other flora on homeowner's shoreline.



These windowed mangroves provide the homeowner with a view from the first floor and privacy from the second.

**Styles of trimming:** Regardless of who conducts the trimming, contact your county extension service office (IFAS) or the <u>International Society for Arboriculture</u> for additional information on standard horticultural practices, & read page 10 of this booklet for caution while trimming red mangroves. Mangroves can be trimmed in a variety of ways that can provide a view while still protecting the health of the tree. There are also some excellent and easy to read books available from libraries, bookstores, and the internet for this purpose. Both the property owner and the trimmer are responsible for trimming mangroves in a manner that will not cause defoliation, destruction, or removal of the mangrove and in accordance with the 1996 MTPA. (Refer to Page 7, *Trimming for Healthy Plants*, and Pages 8 & 9 for *Trimming Styles*.)

# **Trimming for Healthy Plants**

Healthy mangroves are more beneficial to your shoreline, fisheries, water quality, and to your landscape design than are unhealthy mangroves that have been improperly trimmed.

**Trimming Guidance:** Under the 1996 MTPA, dead mangroves and dead portions of living mangroves are protected to the same degree as living mangroves. The dead plants and stems provide habitat and detrital material, and may only be trimmed to the same extent as the living mangroves riparian to one's property.

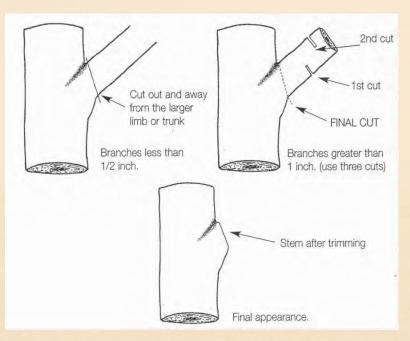
**Objective:** When trimming a branch, the desired result is a nice, clean cut against the branch side of the juncture of the branch and the limb (or trunk), leaving the branch collar in place. Damage to that junction will wound the tree (see diagram on right).

**Equipment:** Tools must be clean and free of oils. It is important that the tools are sharp for a clean cut. The wood at the cut should be smooth, not frayed. Frayed cuts may not heal properly and may be a source of infection. If fraying occurs, your trimmer's tools may not be sufficiently sharp. **Do not** use pesticides or pruning paint on any cuts. Pruning paint can seal in harmful fungi and bacteria and slows healing.

**Herbicides:** Herbicides may never be used on mangroves for trimming or otherwise. Clearcast® is the only herbicide recommended for Brazilian Pepper removal in mangroves. Other herbicides translocate through the roots of the exotic plants into the soil and affect neighboring mangroves. Obtain agency authorization or concurrence before using herbicides in a mangrove area.

**Timing:** Mangroves will only produce new leaves and fruits one-two times each year depending upon the climate in your area. Trimming is best done during the months of October through March, when mangrove growth is somewhat slowed and the plant's energy demand for producing flowers and propagules is reduced, leaving more energy for recovery from the trimming. However, this is also the time when mangroves are most susceptible to damage or death from freezes. Don't trim prior to an anticipated frost, or hurricane. The tree will need whatever leaves it can maintain to generate energy for recovery. To allow

for flowering and fruiting, and for a healthy mangrove area, regular trimming, once or twice a year at the most, will reduce stress to the tree in the future, allow propagule production, and will maintain your view.



**Defoliation is stressful:** If all or most of the leaves are trimmed off of a mangrove, its survivability is severely reduced. Red mangroves and large black mangroves are the most susceptible to death from defoliation. To prevent this from happening, it is recommended and generally required that no more than 25% of the foliage is removed annually from any tree. It is also recommended that the upper 50% of the canopy of tall red mangroves not be cut (i.e. no top trimming of red mangroves). The upper canopy of old, mature black mangroves also should not be removed to maintain the tree's vitality and habitat. See next page for 'window trimming'. Red mangroves loose their ability to resprout new branches from older parts of the tree (coppicing) especially when the diameter of the branch is greater than 1/2-1 inch thick. Removing most of the branch tips, which is where most of the new growth occurs, on a red mangrove can kill a tree.

## **Trimming Styles**

Before trimming try to determine exactly where you would like a view and try to limit the trimming as much a possible. Trees can provide privacy and block the brightness of your neighbor's lights. If you are hedging the trees, consider leaving some areas with uneven heights or emergent stems to provide habitat and richer detrital output than flattopped compact hedges. Alternate trimming styles can provide a 'healthier' view.



Windowed Red Mangroves along a residential complex



**Hedged-trimmed Red Mangroves** 

Windowing: Is a view through large trees that can be obtained by selective limb removal within the lower or central area of the tree. Windowing allows for a view while maintaining shade, privacy, windbreak, and additional habitat for wildlife (especially birds). The bottom height of a window may not be lower than 6 ft. from the substrate. Arborists recommend that the window openings be no more than 1/3 of the canopy for smaller trees and not more than 1/5 of the canopy of larger trees.

**Hedging:** Not all trees can legally be trimmed down to 6 ft. hedges. Leaf mass must remain on the tree for the tree to continue it's life processes. Red mangrove trimming is restricted to

above the lowest areas of leaf mass because the majority of their leaf mass is concentrated at the top and they do not resprout at older lower branches. Hedging is not recommended for red mangroves or mature black mangroves. If you have documentation of a historic trimming configuration with heights below 6 ft., continued trimming to those heights is only 'grandfathered' if no alteration occurs within the trimming area (see Page 18 'maintenance trim').

**Undercutting:** Undercutting is the trimming of the lower portion of a tree (below 6ft.). Undercutting is allowed, so long as defoliation of all or part of the tree does not occur, however it is not preferred due to the damage that can occur to mangrove propagules colonizing in that area. The young mangroves (<6 feet tall) may not be removed, defoliat-

ed or destroyed without an alteration permit or an ERP permit that allows for alteration. Consider a style of trimming that can maintain leaf mass and some open canopy (arboreal habitat). Mangrove leaves are an important source of nutrients for the smaller animals of the marine food chain, including sea grass and coral reef communities. Leaves that die naturally on the tree and then fall into the water are quickly biodegraded and available as a food source, unlike healthy leaves cut from the tree. Fresh cut green leaves will stay mostly intact lying on the substrate for months before total leaf breakdown. It is important to avoid frequent trimming in poorly flushed areas (if possible).



**Undercut Mangroves** 

# **Trimming Styles—Continued**

Design a view and that is comfortable for you while considering the benefits mangroves provide to your home, property, and the economies of our coastal counties and the state. Refer to species description section for additional trimming information.



A combination hedged and windowed Mangroves along with other landscaped plants



Mangroves along your seawall or rip rap provide additional fortification to the cement and rock structures.



These homeowners decided to let their mangroves grow naturally. A small path provides access to their pier.



House with a dock and untrimmed mangroves still retains privacy from passing boaters.

# **Red Mangroves** (Rhizophora mangle)

Red mangroves (Rhizophora mangle) are characterized by their arching 'prop roots'. These roots, also referred to as 'aerial' or 'stilt' roots, extend from the main trunk and lateral branches and grow down into the substrate. Prop roots provide support for the tree and assist in



**Red Mangrove prop-roots** 

on the stem. The long propagules can float for over a year before establishing in a substrate. As the tip of the propagule gets saturated with water, it becomes heavy, falls to the substrate, and sends out roots that establish the propagule into a juvenile tree.

Red mangroves tend to grow closest to the water. Their extensive root system prevents erosion of coastal properties, stabilizing the shifting substrate of shorelines and provide sheltered structure for young fish, shellfish, and other invertebrates (tunicates, sponges, etc.). Wading birds use red mangrove prop roots and the tree's large, and sometimes horizontal limbs as refuge during high tides.

nutrient uptake and gas exchange (through pores called 'lenticels'). They are also physiologically developed to prevent most salt infiltration through a 'salt exclusion' process.

Red mangrove leaves are the largest of the three species. They are elliptical, glossy and dark green on top, and paler, dull green, often with tiny black spots, underneath. All three species have leaves that grow opposite each other



**Red Mangrove** propagules



Group of Red Mangrove emerging from the water

**Trimming Guidance:** Red mangroves are the most susceptible of the mangroves to damage from severe trimming. Red mangroves primarily grow from their branch tips "apical meristems". When most of the leaves and apical meristems are removed, the tree's survival is very doubtful because red mangrove stems greater than one inch thick do not grow back. This is why topping of red mangroves can be so damaging. Most horticultural web sites and publications warn against topping trees. Red mangroves rarely recover from severe trimming and do not resprout most trimmed branches. These trees are best cut by trimming windows from the lower part of the canopy, so long as the bottom of the window is at least 6 ft. from the substrate to prevent illegal trimming of young mangroves growing into the windowed area. Remember that cutting of the aerial/prop roots is prohibited without authorization. The smooth roots are readily distinguished from the stems which have obvious scar rings completely encircling them.

# **Black Mangroves** (Avicennia germinans)

Black mangroves (Avicennia germinans) are distinguished by leaves that are dull, dark green on the upper side and whitish green/ gray underneath. The leaves aid in ridding the tree of salt, and salt crystals are often observed on the underside of the leaves. Black mangroves have an extensive underground cable root system that gives rise to above-ground pencil-like roots called pneumatophores. The pneumatophores are similar to the prop roots of the red mangrove in that they aid in air and nutrient uptake, but unlike red mangrove roots, black mangrove roots do not exclude much salt. Black mangrove roots take in salt-water and then the salt is extruded from the leaves ('salt extruders').

Black mangroves can grow to be quite tall, usually with a single main trunk that often has a large diameter. They are useful as windbreaks during severe weather. They are most attractive when the lower branches are trimmed (windowed) and the upper canopy is left intact or thinned. Their form, color and slender leaves often allow a pleasing, and somewhat private view from waterfront homes.

Black mangrove propagules (lima-bean shaped) are much smaller than red mangrove propagules and light gravishgreen. They are not as hardy as red mangrove propagules, but can be free floating for several weeks before sprouting roots in a suitable environment. Black mangroves can tolerate more saline conditions than other mangroves and generally grow landward of the Mean High Water Line (MHWL).



Upper and lower views of a windowed black mangrove



Black mangrove leaves and fruits (propagules)

mangrove fringes saved property owners from incurring extensive property damage. These accounts occur worldwide and go to show the ability of mangrove fringes in protecting coastlines. Mangroves grow freely and are less costly to replace than seawall, riprap and roofs.

Black mangroves are known to coppice, producing new shoots from the base of the tree, when trimmed, leading to a multiple stemmed shrub.

Trimming Guidance: Black mangroves handle most trimming fairly well, however mature black mangroves are susceptible to excessive trimming and do not recover as well as younger trees. Because black mangroves have such strong, dense wood and are great wind breakers, windowing of the larger diameter trees is highly recommended. Following the hurricane season of 2005, the Department received many accounts of how untrimmed red and black



Characteristic pencil-like 'pneumatophores' of a black mangrove

# White Mangroves (Languncularia racemosa)

White mangroves (Laguncularia racemosa) are characterized by paddle-shaped leaves that are uniformly light green on both their upper and lower surfaces. The leaves are characterized by being notched at the tip, and two small bump-like glands at the base of the leaf (petiole). The glands secrete sugar and are thought to attract ants which aide in the control of other small plant-eating insects.

White mangroves generally do not tolerate the same extent of flooding that black and red mangroves can tolerate. However, in some cases where there is good tidal flushing of the soils, white mangroves will sometimes grow waterward of the blacks and produce aboveground knobby, pneumatophore-like roots. The propagules are small,, vaseshaped and are the least hardy of the three.

**Trimming Guidance:** The white mangrove is the most tolerant of trimming, including hedging. They have reserve growth capability in their meristem. The meristem is a tissue along their trunks, and can provide reserve energy to help the tree recover from trimming. White mangroves can develop blocked vessels leaving parts of older trees weak. When trimming white mangroves, trim for balance of their weight as well as how they look.



White mangrove leaves and fruits



White mangrove tree with two trunks and a balanced canopy over a mostly white mangrove hedge



White Mangrove flowers and paddle-shaped leaves

# **Associate and Exotic Species**

**Buttonwood** (*Conocarpus erectus*) typically grows in close association with mangroves and is often referred to as a mangrove, however, it is not a true mangrove and is not protected or regulated by the 1996 MTPA.

Buttonwood has leaves similar to black mangroves, however they are alternately placed on the stems (mangroves have opposite leaf placement), and the leaves are the same green color on both sides. The placement and color of the leaves and the angles that are apparent on most of the stems distinguish buttonwood from the three native Florida mangrove species. While they do not have any prop roots or pneumatophores, they may produce short, thin, and flexible adventitious roots on the lower trunk in areas of frequent saturation or inundation by water.

Buttonwood has two forms. The most common has green leaves. The rarer variety has leaves that are silvery green on both sides. This later form is often used in landscaping. In Miami-Dade County a Class I Permit is needed to trim buttonwood.

**Buttonwood** 

**Brazilian pepper** (*Schinus terebinthefolius*) is an exotic shrub with compound leaves (multiple leaflets or blades form one leaf). Mangroves have simple leaves with only one blade. The leaves and wood of the plant are aromatic when crushed, and the oils can be irritating or toxic to some people. It has clusters of bright red berries that are toxic to wildlife. Pepper grows very dense, with branches that are often intertwined and difficult to penetrate.

Brazilian pepper also grows rapidly, typically crowding out other species, and blocking views. It typically grows within the landward edge of mangroves extending up the slope from the mangroves. When remov-

ing Brazilian pepper plants from the mangrove area, care must be taken not to cause destruction to the mangroves. A permit to alter the mangroves may be required when mangrove damage cannot be avoided. Homeowners are encouraged to completely remove pepper from their property whether they are obtaining a mangrove trimming or alteration permit or not.



**Brazilian Pepper** 

### **Definitions**

Trim: Means to cut mangrove branches, twigs, limbs and foliage, but does not mean to remove, defoliate, or destroy the mangroves.

Alter: Human-induced removal, defoliation, or destruction of mangroves.

**Defoliate:** "The removal of leaves by cutting or other means to the degree that the plant's natural functions have been severely diminished or which result in the death of all or part of the mangrove". (From the Pinellas and Hillsborough mangrove rules provided as guidance to prevent unauthorized alteration).

Lands set aside for conservation or preservation: These lands may be publicly owned such as parks (see S. 403.9325(6), F.S.), or privately owned such as conservation easements (see 'Property restrictions'). S. 403.9323(2), F.S. specifically precludes trimming from occurring in these areas without a management plan or statement that specifically allows mangrove trimming. (Professional mangrove trimmer 'PMT', page 17).



Mangroves growing along a riparian shoreline



Hedged trimmed mangrove fringe

Riparian Mangrove Fringe (RMF): Those areas where the mangroves start growing along the shoreline (see 'shoreline'), do not exceed 24 ft. in height, and the band of mangroves along a shoreline is no more than 50 feet from the most landward trunk to the most waterward trunk in a line perpendicular to the shoreline. The RMF exemptions may not be used on uninhabited islands, mangrove islands, mitigation areas, or public or private lands set aside for conservation or preservation unless the documents for such areas specifically allow for mangrove trimming. RMF trimming is exempt from the need for permits (see page 16, for Exemptions).

Riparian property owner: The owner of lands that extend waterward to the mean high water line [MHWL]. The riparian property owner must provide permission to trim along their property and on the sovereign submerged lands immediately waterward of their riparian property. In many locations, an entity other than the state owns the lands between MHW and the dry, 'upland' portion of the property; in such cases, the landward property owner is not a riparian property owner.

### **Definitions—Continued**

**Shoreline:** (wetland line) For the purposes of the regulatory 1996 MTPA, the term 'shoreline' means the wetland and other surface water delineation line as determined using Rule 62-340, F.S. as directed in S. 403.9328(2)(a), F.S. If another wetland type is landward of the mangrove area, that mangrove area will not be considered as 'growing along the shoreline'.

**Sovereign submerged lands (SSL):** Those lands extending waterward from the MHWL owned by the state of Florida. The 1996 MTPA provides permission for riparian property owners to trim mangroves along their shorelines and on sovereign submerged lands immediately waterward of their property. In some cases, an authorization (permit) is also required.

**Pre-trimmed height:** The height of the mangroves immediately prior to any trimming event, whether it be the first time trimming, staged trimming, or maintenance trimming.



Mangrove forest growing in a tidal basin

Professional Mangrove Trimmer (PMT): A person who possesses a certification from one or more of the organizations listed in 403.9329 (1), F.S. or has obtained Departmental status by completing the requirements listed in 403.9329(2), F.S. A PMT is required for all trimming events under the General Permits, andcertain exemptions.

Property restrictions: Legally binding covenants running with the land can restrict existing and future property owners from performing certain activities on the land. These may be in the form of a conservation easements or other deed restrictions. For mangrove trimming to occur within a conservation easement, the easement must have language that specifically allows for mangrove trimming. These covenants are recorded in the public land records, and accompany the deed for the property. Homeowners associations often have covenants that restrict certain activities on private property and common

property under the control of the association. Trimming of riparian mangroves must be authorized by the 'riparian owner' whether it be an individual with a single family residence or a homeowner association for a community.

Mangrove: The 1996 MTPA defines the word mangrove to mean any specimen of the three native Florida species (*Rhizophora mangle, Avicennia germinans, Laguncularia racemosa*), also known as the Red, Black, and White mangroves. The Act does not distinguish between living and dead mangroves. Trimming regulations apply to both equally.



**Dead Mangrove along the shore** 

## **Exemptions for Property Owners**

Activities that qualify for an exemption may be conducted at no charge and without a permit.

There are five exemptions applicable to homeowners in the 1996 MTPA (Ss. 403.9326(1)(a), (b), (c), and (d), and S.403.9328(5), F.S.). These provisions and the rest of the 1996 MTPA may be viewed on the internet by searching for '1996 Mangrove Trimming & Preservation Act '. Additional exemptions exist for trimming by governments, utilities, and surveyors. Homeowners should review the definition of riparian mangrove fringe (RMF) in S. 403.9325(7), F.S., (summarized on Page 14). This term is critical when qualifying to use some of the trimming exemptions in S. 403.9326.

#### **Conditions to qualify for an exemption:**

- Only trimming, not alteration, may be performed. Defoliation is not allowed. The Act requires staged trimming, which is removal of not more than 25% of the leaves from any tree annually for trees taller than 16 ft. To prevent alteration and maintain healthy trees, the 25% limit should be applied to all mangroves regardless of height.
- Mangrove roots may not be trimmed. Cutting mangrove roots is considered alteration and needs a permit. Mangrove roots are smooth and distinguishable from branches and stems which have obvious scars that make a ring.
- Trimming may only be done with the permission of the riparian property owner. The trimming must be limited to the mangroves on the riparian property and on the sovereign submerged lands immediately waterward of that property. Trimming on another person's property is not authorized. The following is a summary of the conditions of the homeowner's exemptions, however, be sure to review the actual wording of the 1996 MTPA for all the applicable provisions.

#### Exemption 403.9326(1)(a), F.S.:

- Homeowners may trim the mangroves in an RMF, without a PMT, on their property and the sovereign submerged lands immediately waterward of the property when the mangrove height exceeds 6 feet, but is not taller than 10 feet, and the mangroves are not defoliated or reduced in height below 6 feet.
- For shorelines greater than 150 feet only 65% of the mangrove area may be trimmed. Area is determined by square feet of mangrove cover.

#### Exemption 403.9326(1)(b), F.S.:

- A PMT is required to trim in an RMF when the mangroves are 10-24 feet tall. Mangroves >24 feet tall are not exempt, and will require a permit in order to trim.
- Trees >16 feet tall prior to trimming must be trimmed in stages so that no more than 25% of their leaves are removed annually.
- For shorelines >150 ft., only 65% of the mangrove area may be trimmed. Area is determined by square feet of mangrove cover.

#### Exemption 403.9326(1)(c), F.S.:

 A PMT may reestablish the height of a previous, legally-attained, RMF configuration if the mangroves are 10-24 feet tall in pretrimmed height, and alteration will not occur. Verification of the historic trim must first be obtained from the agency.

#### Exemption 403.9326(1)(d), F.S., 'Maintenance Trim':

Homeowners may 'maintain' a legally attained height and configuration without the use of a PMT. If the maintenance ceases for a period of time, reestablishment may only occur in an RMF. For all other areas, a new permit under S. 403.9328 is required.

#### **Exemption 403.9328(5), F.S., 'Alteration Exemption':**

 No permit or PMT is required to trim or alter mangroves within the footprint of an activity that has been exempted under S. 403.813 (1), F.S. or permitted under Part IV of Ch. 373, F.S. For example, one may trim the mangrove branches hanging directly over one's dock.



Trimmed Mangroves arching over boardwalk in Lovers Key

## **Professional Mangrove Trimmers** (PMTs)

The following types of persons are considered to be professional mangrove trimmers based on certification in one of the following organizations, or who have demonstrated qualification under the 1996 MTPA:

- Arborists certified by the International Society of Arboriculture (ISA).
- Professional Wetland Scientists, certified by the Society of Wetland Scientists.
- Environmental Professionals, certified by the Academy of Board Certified Environmental Professionals (Florida Association of Environmental Professionals membership is insufficient).
- Ecologists certified by the Ecological Society of America.
- Landscape Architects currently licensed under part II of Chapter 481 and who have agreed to certain mangrove trimmer standards.
- Persons in receipt of PMT status from the Florida Department of Environmental Protection (in locations that are not delegated to local governments) or as recognized by a local government that has been delegated the state mangrove regulatory program from the DEP.

**Note:** Membership in an organization generally does not constitute certification by that organization.



**Professional Mangrove Trimmer** 

PMTs are required to qualify for certain provisions under the MTPA:

- For trimming under an exemption to establish the desired height and configuration of the mangroves, where the mangroves are greater than 10 feet in height (S.403.9326(1)(b),F.S.).
- For trimming to reestablish a documented, historical, and legal height and configuration for the mangroves within a riparian mangrove fringe (RMF) and the mangroves are greater than 10 feet in height (S. 403.9326(1)(c), F.S.)
- Note that 'reestablishment' differs from 'maintenance' (See page 16). Reestablishment may only occur for an area that qualifies as an RMF.
- Trimming mangroves under a General Permit (S. 403.9327, F.S.)
- The Individual Permit (S. 403.9328, F.S.) does not specifically require a PMT, but does require reasonable assurance that the trimming will be compliant, therefore a PMT may be required.

**Note:** In all cases check the trimming experience of the person you are hiring. Contact your local mangrove regulatory office (page 20) for a trimmer's regulatory history and talk with other waterfront homeowners who have used various mangrove trimmers in your area.

For assistance in locating a PMT for your area, a searchable list of the <u>state mangrove trimmers</u> for non-delegated areas is provided. Note: the Department offers the list as a courtesy, the list is not intended as an endorsement for any PMT.

When a PMT is found in violation of the state mangrove trimming regulations in non-delegated areas, the violation will be noted on the state PMT list.

If your property is in a delegated area, contact the local agency for your area (page 20). Please be aware that the applicant, permittee, landowner and the trimmer/PMT are held jointly and severally liable for violations under the 1996 MTPA, unless Department or delegated local government staff can determine the lack of involvement for any party. Always take date stamped photographs before and after each trimming event to document the heights and conditions of the mangroves.

## **Maintenance Trimming**

Most of the provisions of the 1996 MTPA allow mangroves to be trimmed no lower than 6 feet in height from the substrate. This does not mean that everyone will be able to trim their mangroves down to a height of 6 feet.

For example, if trimming to such a height can be expected to result in the removal, defoliation, or destruction of a mangrove, the cutting is

considered alteration and would not qualify as trimming. A permit would be required for such alteration, and it may or may not be issued. While staged trimming is not required, it is strongly advised. Elimination of multiple trunks will likely be considered alteration.

The 1996 MTPA includes two exceptions to this 6 foot height limitation:

- To reestablish a previous, legally-attained configuration within an RMF (S. 403.9326 (1)(c), F.S.)
- To maintain mangroves in accordance with a previous configuration attained through an exemption or previous government authorization (S. 403.9326(1)(d), F.S.).

In both cases, the reestablishment and maintenance cannot result in the destruction, defoliation, or removal of any mangroves growing within the trimmed area. If some of the mangroves are being killed by trimming to the lower height, the owner will be told to let the mangroves grow up to at least 6 ft. in height. For reestablishment, the property owner must provide believable documentation of the prior configuration.

#### **Documentation includes:**

- information on when and specifically where on the property the prior height and configuration was attained (so the agencies may determine if such height and configuration was legally achieved)
- copies of permits or acknowledgement of exempt status from all applicable agencies where available. This may include copies of letters from the DEP acknowledging the 'grandfathered' ability to

trim below 6 feet, or a letter to the DEP under the provision of rule 62-321.060, F.A.C. (one of the former state mangrove rules);

 affidavits from persons attesting to their knowledge of the previous mangrove configuration may be accepted.

There are a few coastal communities where most of the waterfront property owners previously legally achieved and maintained a mangrove height and configuration below 6 feet; in other communities, only a few of the properties have such a configuration; and copies of dated photos.

You may expect DEP staff to reguest to view the above documentation during field compliance checks. If you do not have the necessary documentation, and

you are not in one of the rare, fully documented communities, DEP staff may conclude that the mangroves on your property do not qualify to be reduced to a height of less than 6 feet from the substrate without a permit and require you to let the mangroves grow up to the current legal height of 6 feet.



### **General Permit – Individual Permit**

#### **General Permit (GP):**

Activities that do not qualify for one of the exemptions described on page 16 may qualify for a General Permit. Limitations pertinent to both GPs include:

- Riparian property owner authorization is required;
- A PMT must be used and identified to the agency prior to trimming;
- No tree may not be trimmed lower than 6 feet;
- Trimming must be conducted in stages so that no more than 25% of the foliage is removed annually.
- GPs may only be issued once per property. If the trimming attained is not maintained under S. 403.9326(1)(d), an Individual Permit will be required for future trimming;
- An application fully describing the proposed trimming and a \$250 fee must be submitted to the DEP district office before beginning any work under a general permit. A suggested General Permit application form is provided (scroll down to 'Mangrove Trimming').

#### **GP for View under S. 403.9327(1)(a), F.S.:**

- The mangrove area must start at the shoreline ('wetland line');
- The mangrove area subject to trimming must not be more than 500 feet deep (measured from the most landward to most waterward trunk in a line perpendicular to the shoreline) and the mangrove cover must be continuous. While measuring this distance, once open navigable water, salterns, or other wetland types are encountered, no further waterward trimming may occur under this statute;
- Only 65% of the qualifying area of mangroves may be trimmed.
- Equitable distribution of the 65% trim are must occur for multifamily units along a common shoreline. This ensures that each unit obtains of view, where applicable.

#### GP for limited trimming of mangroves under 403.9327(1)(b), F.S.:

• Trimming is limited to those portions of branches or trunks of mangroves that extend into the navigation channel beyond the vertical plane or the most waterward prop root or root system.

#### **Individual Permit (IP):**

An individual permit may be applied for all other trimmings or alterations:

- that cannot be conducted under an exemption or GP;
- that will result in alteration of mangroves, e.g. extensive exotic plant removal (see photo below);
- when the applicant proposes to use a trimmer who is not a PMT. A
   PMT is not required to conduct the trimming or alteration under S.
   403.9328, however Individual Permits are subject to review under
   Chapter 373.414(1) and (8), which in part require reasonable assurance that the activity will be conducted properly in accordance
   with the 1996 MTPA and the permit conditions., which includes a
   person who knows how to trim mangroves.

The <u>application</u> must provide the entire scope of the proposed activity and how it will be conducted. A fee of between \$420 and \$830 is required (depending on the number of mangroves to be trimmed or altered). Agency staff should be contacted for additional information. Pre-Application meetings are highly recommended for both GP and IP trimming to save the applicant time, effort and cost.



An Individual Permit should be used if mangrove alteration is possible from trimming or exotic removal

### **Statewide Contacts**

#### **FDEP OFFICES**

#### **Northwest District Office**

Pensacola Office (850) 595-8300 Panama City Branch Office (850) 872-4375 Tallahassee Branch Office (850) 245-8428

#### **Northeast District Office**

Jacksonville Office (904) 256-1700

#### Central District Office

Orlando Office (407) 897-4100

#### Southwest District Office

Tampa Office (813) 470-5700

#### Southeast District Office

West Palm Beach Office (561) 681-6600 Port St. Lucie Branch Office (772) 467-5500

#### South District Office

Ft. Myers Office (239) 344-5600 Monroe County Branch Office (305) 289-7070

#### LOCAL DELEGATED GOVERNMENTS

Miami-Dade Co. Coastal Resources Section, DERM Phone: (305) 372-6575, FAX (305) 372-6479 http://www.miamidade.gov/development/permits/ class-1.asp

Broward Co.

Development & Environmental Regulation

Division and Engineering Phone: (954) 519-1230

http://www.broward.org/Regulation/Engineering/

Pages/MangroveTrimming.aspx

Town of Jupiter Island **Building Department** Phone: (772) 545-0150

http://www.townofjupiterisland.com/d building.php

City of Sanibel

Natural Resources Department

Phone: (941) 472-3700

http://www.mysanibel.com/Departments/Natural-Resources/Vegetation-Information/Mangroves

Pinellas Co.

Water & Navigation Section, Environmental Mgmt.

Phone: (727) 453-3385

http://www.pinellascountv.org/environment/

watershed/mangroves.htm

Hillsborough Co.

Wetlands Mgmt., HEPC

813-627-2600

http://www.epchc.org/index.aspx?nid=229

#### MANGROVE COORDINATOR

Daniel Sensi State Mangrove Coordinator Submerged Lands and Environmental Resource Coordination Program Florida Department of Environmental Protection 2600 Blair Stone Road, M.S. 2500 Tallahassee, FL 32399-2400 daniel.sensi@dep.state.fl.us

Office: (850)245-8428

Contact for information on:

- Locating a Professional Mangrove Trimmer (PMT) for your area
- Information on how to apply for PMT status
- Questions on mangrove trimming & alteration
- Ecological information on mangroves



The preparation of the first edition of this booklet was funded in part by an EPA grant through a contract with the FDEP. This second edition is available electronically on FDEP website.

http://www.dep.state.fl.us/water/wetlands/mangroves/index.htm

\*Second Edition



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#### **Additional Websites**

Florida Department of Environmental Protection's Webpage

http://www.dep.state.fl.us/

FDEP Submerged Lands and Environmental Resource Coordination

http://www.dep.state.fl.us/mainpage/programs/wetlands.htm

**FDEP Mangrove Coordination** 

http://www.dep.state.fl.us/water/wetlands/mangroves/index.htm

FDEP Delegated Local Governments

http://www.dep.state.fl.us/water/wetlands/mangroves/mangrove\_trimming.htm

FDEP List of Professional Mangrove Trimmers <a href="http://www.dep.state.fl.us/water/wetlands/mangroves/">http://www.dep.state.fl.us/water/wetlands/mangroves/</a>
<a href="pmt.htm">pmt.htm</a>

FDEP Mangrove Trimming and Preservation Act <a href="http://www.dep.state.fl.us/water/wetlands/mangroves/docs/mtpa96.pdf">http://www.dep.state.fl.us/water/wetlands/mangroves/docs/mtpa96.pdf</a>

FDEP Mangrove Trimming and Alteration Application <a href="http://www.dep.state.fl.us/water/wetlands/erp/forms.htm#mangrove">http://www.dep.state.fl.us/water/wetlands/erp/forms.htm#mangrove</a>

International Society of Arboriculture <a href="http://www.isa-arbor.com/home.aspx">http://www.isa-arbor.com/home.aspx</a>

Society of Professional Wetland Scientists <a href="http://www.wetlandcert.org/index.html">http://www.wetlandcert.org/index.html</a>

Academy of Certified Environmental Professionals <a href="http://www.abcep.org/">http://www.abcep.org/</a>

Ecological Society of America <a href="http://www.esa.org/esa/">http://www.esa.org/esa/</a>

Landscape Architects

https://www.myfloridalicense.com/intentions2.asp?chBoard=true&boardid=13

Horticulture Information on Tree Topping <a href="http://www.treesaregood.com/treecare/topping.aspx">http://www.treesaregood.com/treecare/topping.aspx</a>





