

PRESENTATION TO THE INDIAN RIVER COUNTY COMMISSION
REQUESTING ORDINANCE Section 926.02 - 927.03 BE UPDATED
TO REFLECT

Best Management Practices (BMP) of Pruning Mature Trees

Provided to the Public by the University of Florida
and the Institute of Food and Agricultural Sciences
Urban Forest Hurricane Recovery Program 2015
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Section 7 of Article II, General Provisions, of the **Constitution of the State of Florida**, provides a clear statement that the actions of the legislature and state agents of Florida are to be defined and guided by policies that serve to “conserve and protect” the Florida environment.

SECTION 7. Natural resources and scenic beauty.

(a) **It shall be the policy of the state to conserve and protect its natural resources and scenic beauty.** Adequate provision shall be made by law for the abatement of air and water pollution and of excessive and unnecessary noise and for the conservation and protection of natural resources.

2018 Florida Statutes

Title XXVIII NATURAL RESOURCES; CONSERVATION, RECLAMATION, AND USE

Chapter 373 WATER RESOURCES

SECTION 185 Local Florida-friendly landscaping ordinances.

373.185 Local Florida-friendly landscaping ordinances. —

...each [water management] district shall use the materials developed by the department, the Institute of Food and Agricultural Sciences at the University of Florida...



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The Center for Landscape Conservation and Ecology

In 2006, the Florida legislature created the UF/IFAS Center for Landscape Conservation and Ecology (CLCE) to provide Florida-Friendly information. The CLCE promotes the protection and preservation of Florida's natural resources and quality of life through responsible landscape management.

The Center's mission is to protect and conserve Florida's natural resources through research-based sustainable landscape practices.

The Center's vision is to be the leading source of science-based information on horticulture and the urban environment in Florida.

Pruning of Mature Trees

- Old trees can decline as a result of removing too much live tissue.
- Try not to remove more than **10% of the live foliage** on a mature tree.
- Remove more than 10% only for a good reason such as a cracked live branch over a house.



UPDATE NEEDED OF IRC ORDINANCE

Current IRC Ordinance Section 926.02 - 927.03

Indian River County Ordinance Excerpts

Section 926.02 - 927.03 Purpose and intent.

The Board of County Commissioners recognizes that the unique characteristics and qualities of Indian River County justify regulations to retain and perpetuate a beneficial, natural, and visually pleasing environment.

Trees and native vegetation are recognized for their importance in: shading; cooling; reducing noise and wind; preventing soil erosion; producing oxygen; filtering dust; absorbing carbon dioxide; enhancing aesthetics; and increasing the economic value of real property. Trees also contribute to the general well-being and quality of life in Indian River County. It is further the purpose and intent of

this chapter to promote water conservation through the preservation of existing native Florida vegetation.

(2) (c) *Mature trees shall not be pruned to reduce the canopy to less than the minimum fifteen-foot spread, except for the removal of dead or diseased wood.*

(d) *Pruning techniques that are unhealthy for or produce an unnatural appearance of a tree or native palm are prohibited. I.e. no more than twenty-five (25) percent of the living crown of a tree removed through pruning.*

UF/IFAS BMP Mature Trees

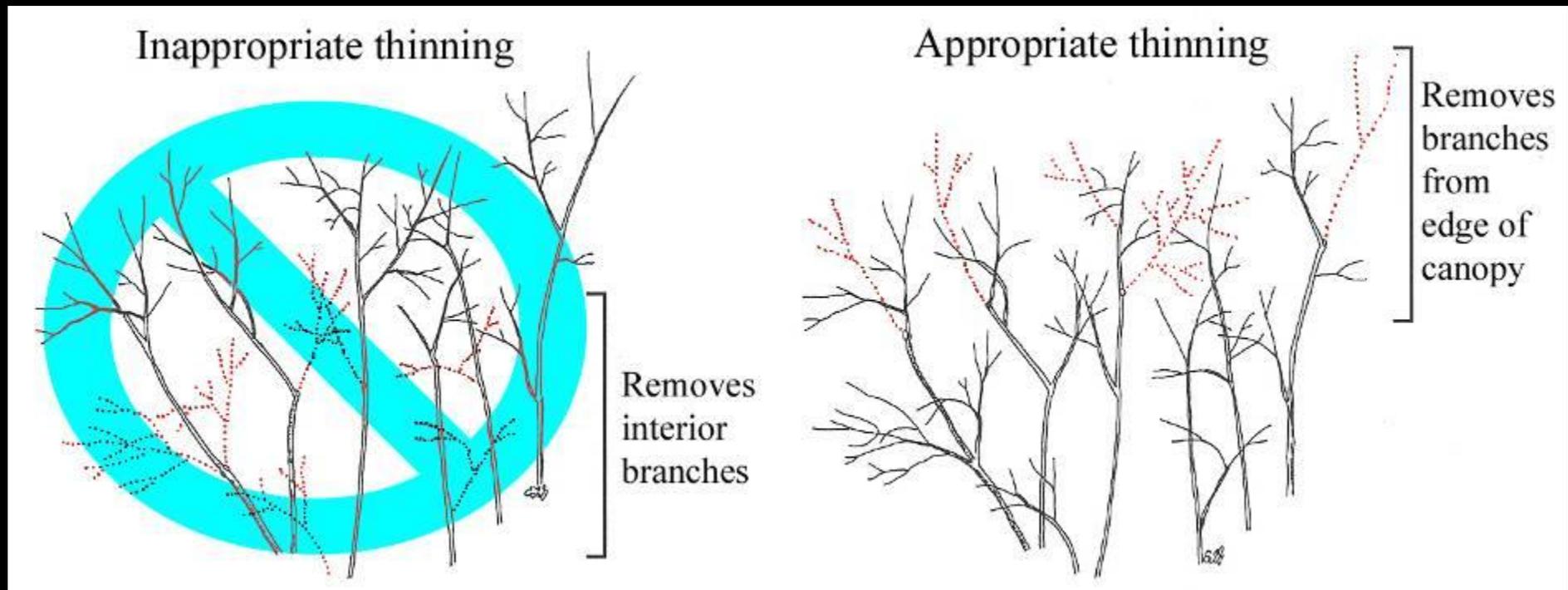
- Old trees can decline as a result of removing too much live tissue.
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Risks of removing too much tissue

- Forces use of energy by initiating defense mechanisms.
- Removes energy reserves.
- Can cause cracks.
- Can cause sprouting.
- Can cause branch death.
- Can cause tree mortality.
- Reduces energy storage space.

Pruning to Thin

- The **selective** removal of small live branches **from the edge of the canopy** to reduce crown density
- Increases light and air penetration to promote internal foliage*
- Reduces the risk of storm damage



A naturally and beautifully shaped skeleton of an oak that sustained wind and salt scald post Hurricane Irma. This tree has since recovered but had the interior removed by pruning.



How to thin a canopy

Before thinning



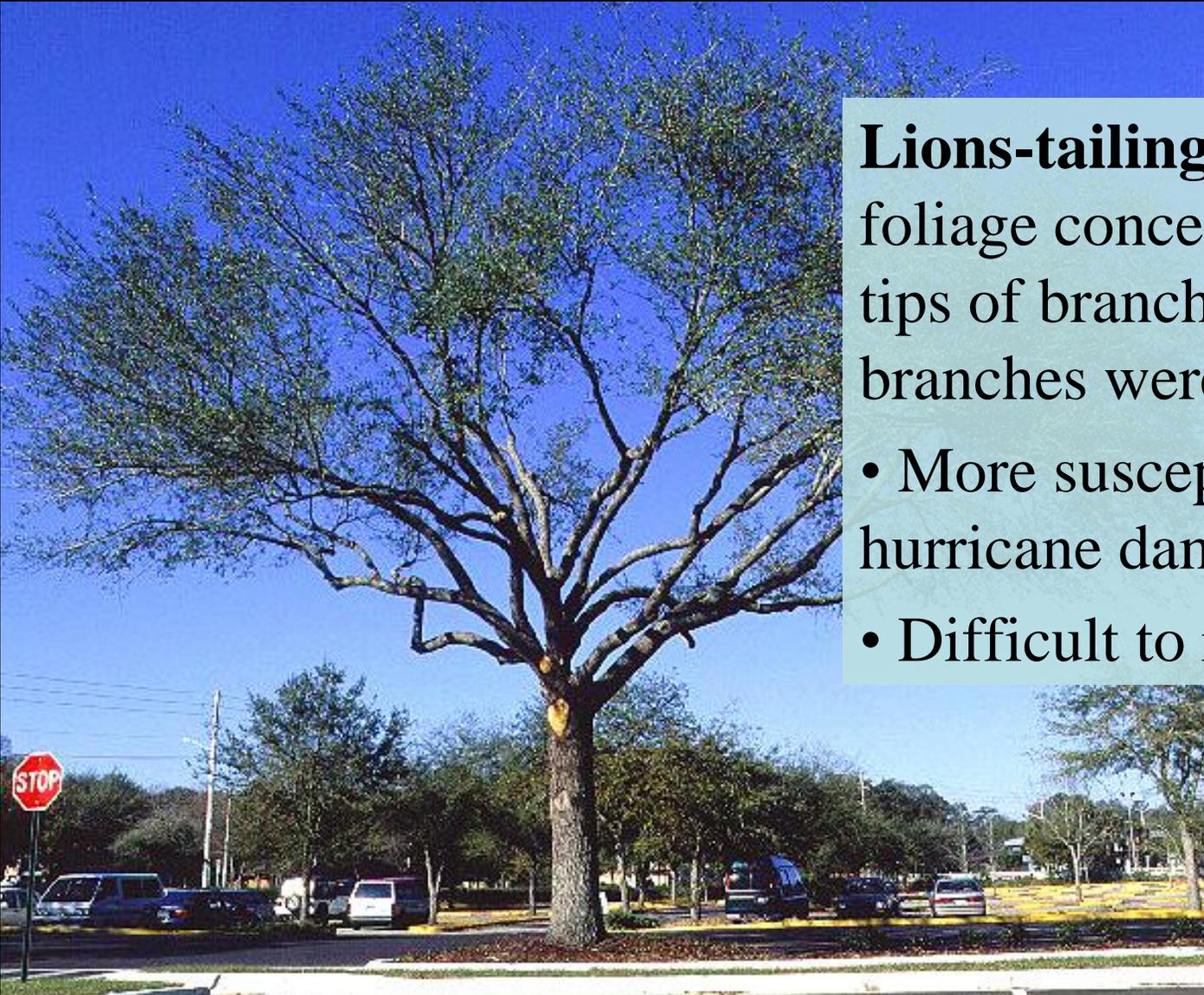
After inappropriate
thinning



After appropriate
thinning



Inappropriate thinning



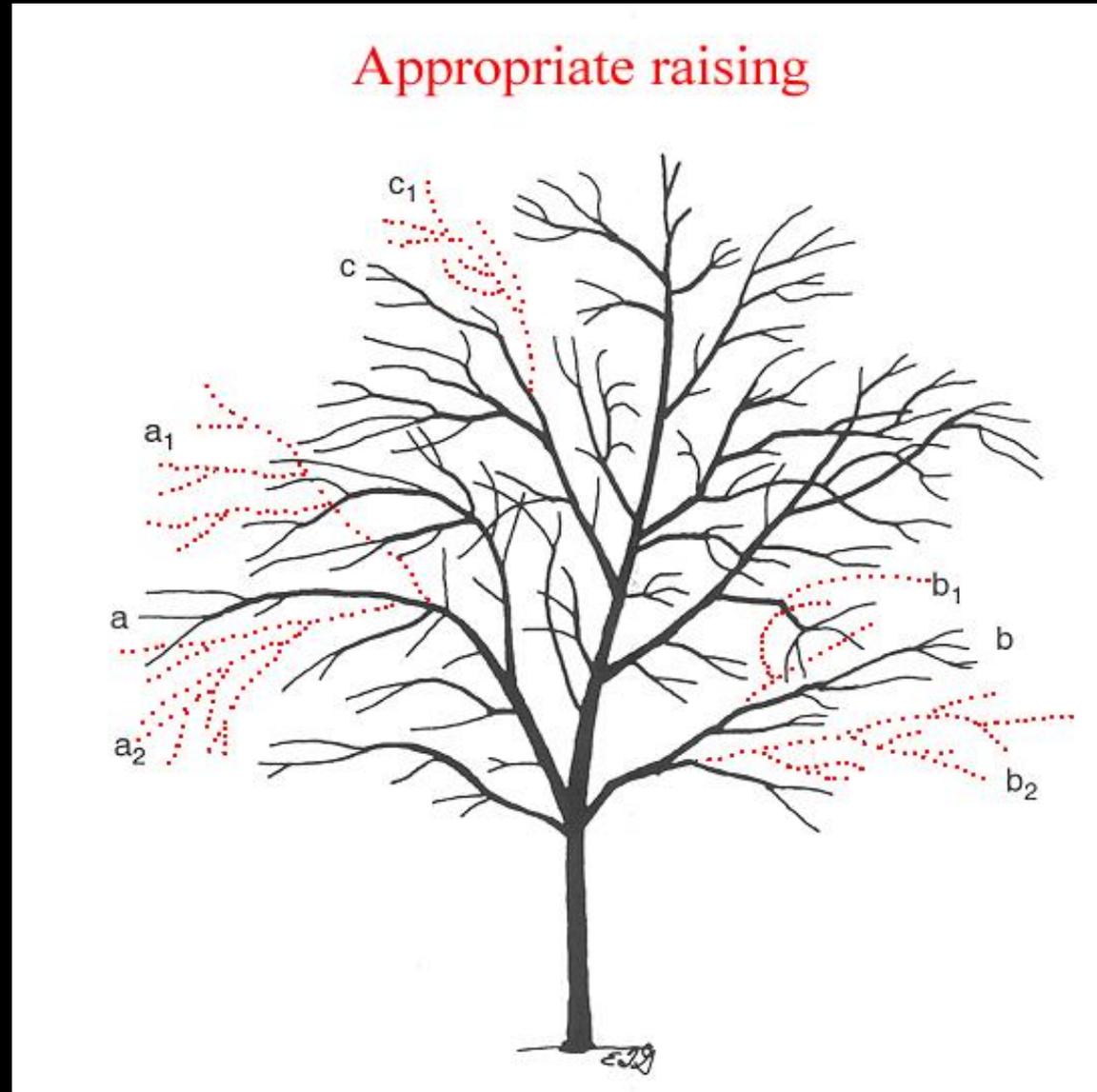
Lions-tailing: trees with foliage concentrated at the tips of branches because inner branches were removed.

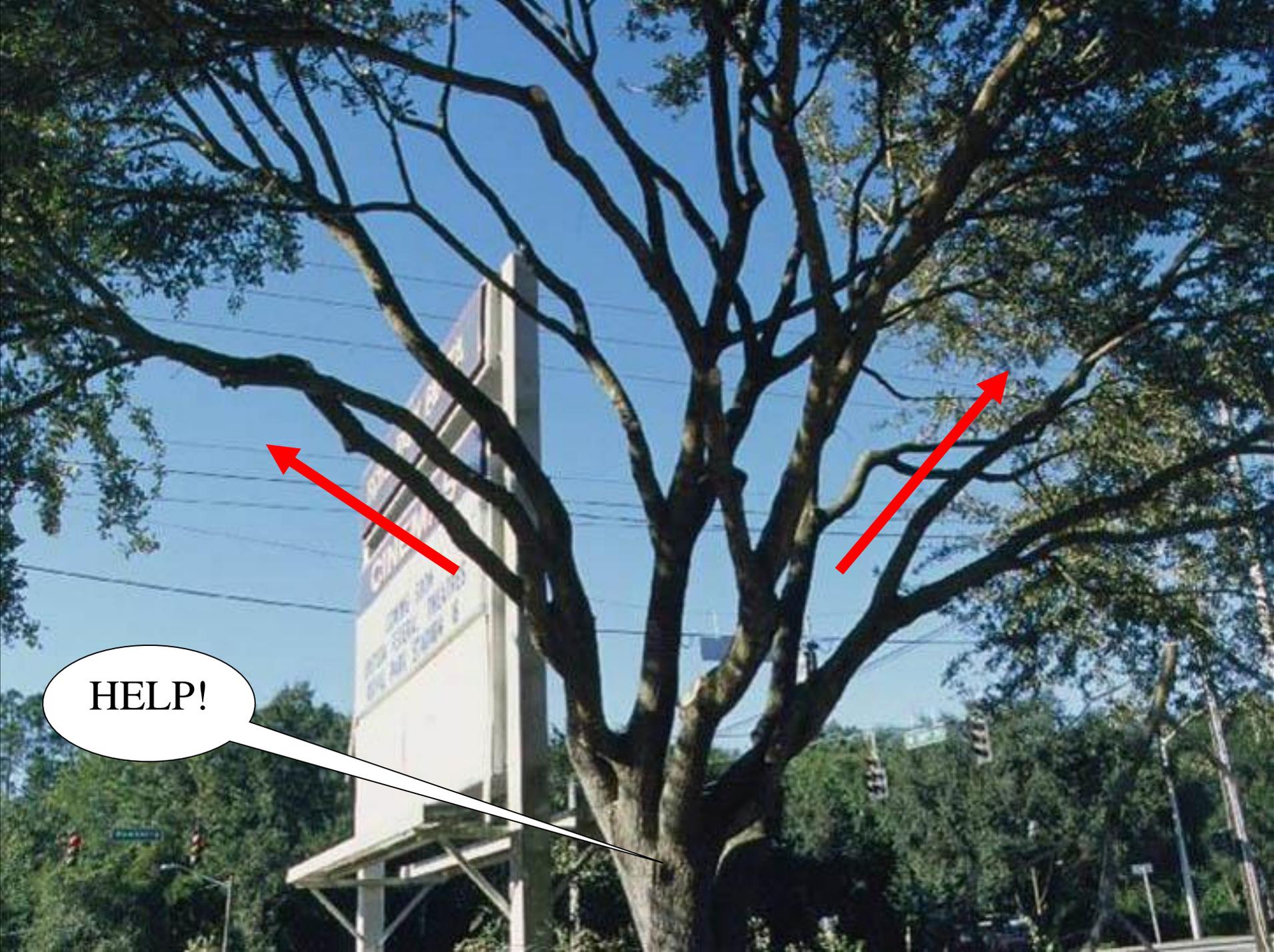
- More susceptible to hurricane damage
- Difficult to restore

Pruning to Raise

- The selective removal of branches to provide vertical clearance
- Best done over a period of years, not all at once

Clearance can be achieved by shortening low branches rather than removing them





HELP!

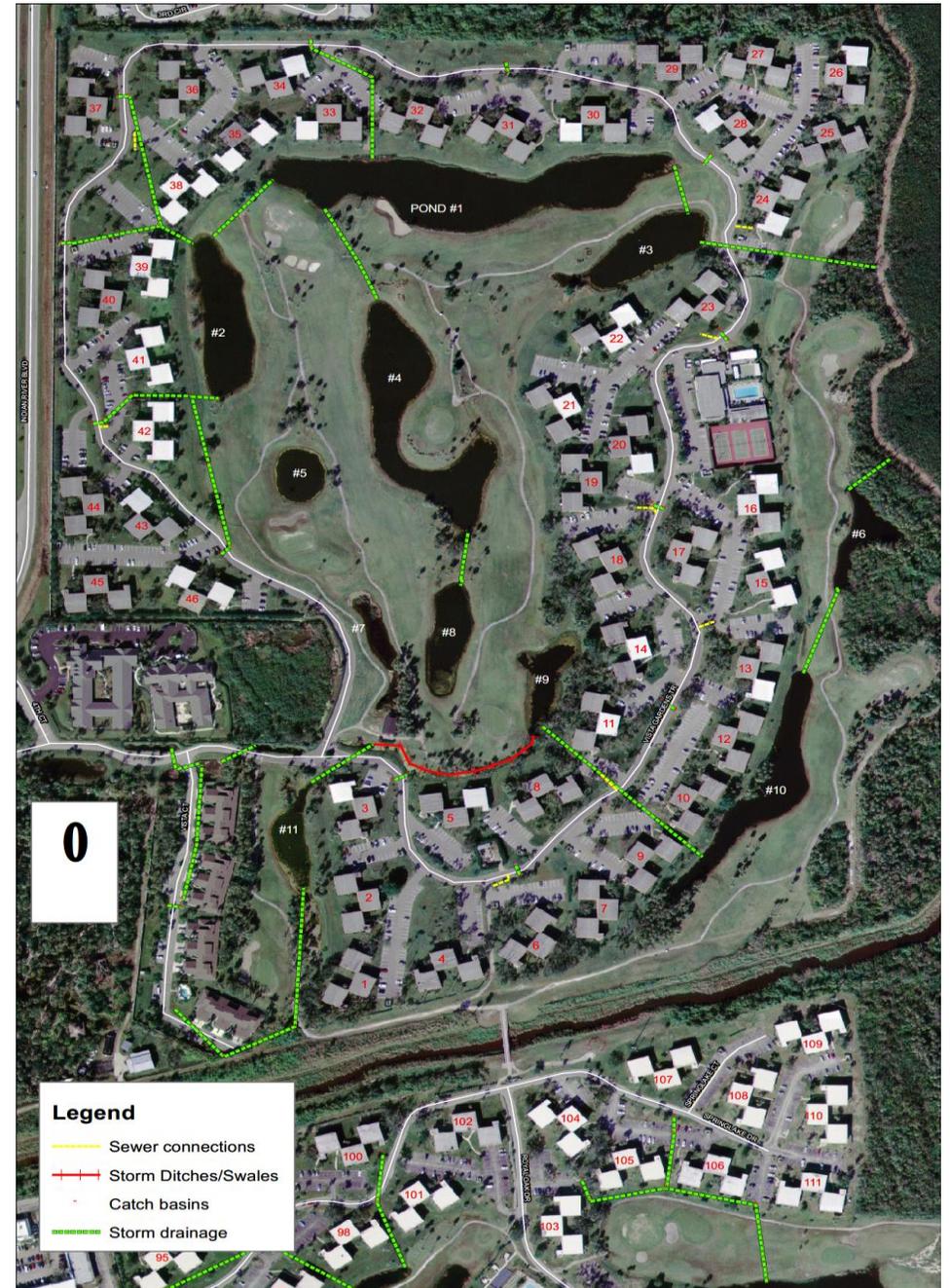
Remove live foliage only for a good reason!

Excessive sprouting as a result of stress caused from over pruning.



Map of Vista Gardens

Map of Wells and Storm Water System Provided by Indian River County Land Development Department showing ponds drain into Indian River Land Trust Greenway Property (Right side is East)



Example of a severely thinned, lion's tailed mature oak in Vista Gardens, pruned April 2017



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Overlifting

Removing too much interior foliage, referred to as over-lifting or lions-tailing (see photo) removes branches that previously provided dampening of movement in wind storms. Without this dampening, main branch movement can increase in a wind storm. This is thought to lead to contribute to damage in storms. Overlifting also removes many live branches that provided a food source for living cells inside the wood. Living cells within the wood die as a result. This can lead to dysfunctional wood and cracks.



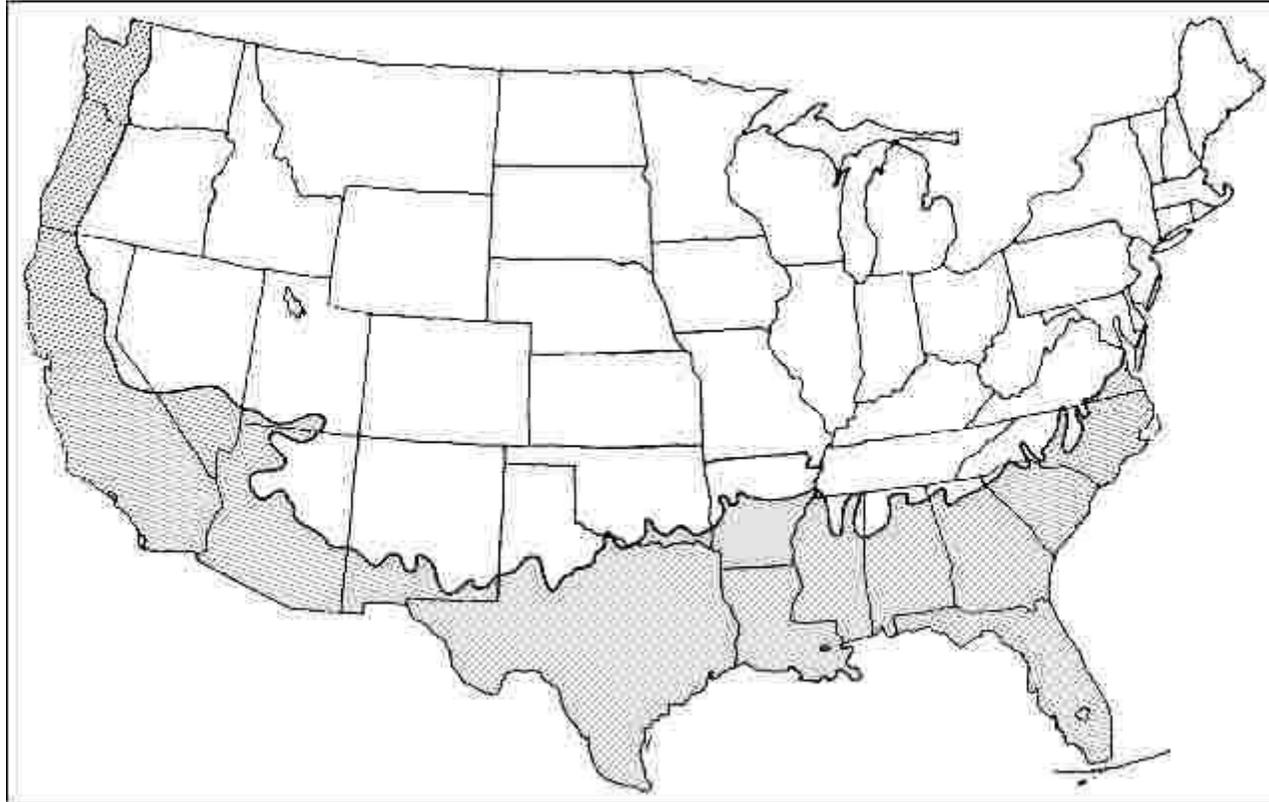
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Mature oak showing evidence of severe thinning and raising on the bottom of the tree April 2017 with wind and salt scald on the top from Hurricane Irma September 2017 (top was not protected by the wall in the background)



UF/IFAS Document ENH-722: *Quercus virginiana*: Range of Southern Live Oak



6. **Reduced Limb Strength Leading to Breakage**
In the same manner, individual limbs are subject to higher stresses if too much of its foliage and lateral growth have been removed. Trees that contain long limbs with foliage only on the tips are more likely to break than limbs that contain many smaller, outward growing limbs and an even amount of foliage. The even amount of outward growth and foliage help distribute the stress load from high winds along the entire length of the limb instead of concentrating it at the tip.

In summary, over pruning causes:

- Excessive wounds that must be healed
- Reduced food storage
- Increased interior sprouting
- Decreased tip growth
- Increased end weight on limbs
- Increased chances of sunscald/sun injury
- Increased maintenance expense
- Increased chances of wind or ice damage
- AN UGLY TREE!

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The Tree Care Experts

DANGERS OF OVER PRUNING

*"I want my grass to grow better.
Can you really thin my tree?"*

*"I want to remove most of the lower
limbs, to see my house better."*

Over pruning is one of the worst and most common mistakes in tree maintenance. Why is it so common? There is a general lack of understanding about how a tree functions or a lack of current information about tree health. Unfortunately, myths often guide tree pruning.

Myths to Avoid

- "Remove one-third of the top growth when transplanting to offset root loss"
- "Prune heavily to offset construction injury or soil compaction"
- "Prune heavily to help the turf grow"

ARBORICULTURE IN FLORIDA

- In Florida, **NO TRAINING** is required for anyone wanting to prune trees
- Arborists are **NOT LICENSED** as professionals by the State of Florida*
- Arborists have only a business license from Indian River County, not a license as a professional
- To be certified by the International Society of Arborist [ISA] or other similar organizations, requires only passing a written examination and paying annual dues
- There is **NO accountability** for arborists in Florida
- **Unlicensed, untrained arborists have enormous earning power and use myths and unproved reasons to persuade homeowners and HOA's to over-prune trees year after year**
- **Due to high demand for unskilled labor, arboriculture is one of the top ten at-risk industries for human trafficking, slave labor and illegal immigration**