

# **Integrating Human and Natural Systems**

## **Guidelines for Tree Conservation and Protection**

### **Concepts, Policies and Strategies**

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## Preface

In this report, *integrating human and natural systems* is defined as a coherent system of biological and social factors capable of adaptation and sustainability over time.

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It is no coincidence that cities perceived as “most livable” always have an abundance of trees. Most cities recognize the crucial role trees play in terms of enhancing the urban environment and transform their commitment into law. Local ordinances assure urban forests a secure future and give them an important place in each city’s infrastructure and funding.

“In the early decades of the twenty-first century the ultimate challenge of Ecology is to integrate and synthesize the ecological information available from all levels of inquiry into an understanding that is meaningful and useful to managers and decision makers”. G. E. Likens

A good ordinance protects city trees and guides actions that impact them. Good policy and clear guidance is especially important and should precede development and construction activity. A plan also prevents unexpected tree removals.

The purpose of this guide is to provide practical information for communities dealing with tree ordinances. We hope to provide a means for sharing successful ordinance provisions and methods used in cities throughout the state. This guide is designed to be used by either citizen groups or local governments. However, development of a tree ordinance will be most effective when both groups work together. Some communities have found that forming a task force is an excellent way of ensuring cooperation between groups with diverse interests. From our own experience, we suspect such efforts as interdisciplinary, mutual learning to be simultaneously complex yet exhilarating. As Kathy Beck with the City of Tampa puts it: “The ideal ordinance is one in which everyone is equally unhappy.” *The information contained is for guidance only and not a statement of law.*

## **How to Use This Guide – Concepts, Policies and Strategies**

A community may find that a tree ordinance is necessary to further its socially defined goals and adaptive management objectives. This guide provides a variety of tools and resources for citizens and local governments interested in developing, revising, or evaluating local tree ordinances.

Whether a community is large or small, rural or urban, the basic process for developing a tree ordinance is the same. In each case, the community determines what it has to work with and what it hopes to achieve. It must then formulate and execute plans to get what it wants, and finally, evaluate whether it is achieving its desired ends. For example, changes in land use (such as a shift from forest land to housing, or farm and grazing land to parking lots and shopping malls) may impact a full range of social institutions in ways that managers and citizens anticipate. A public agency, such as a planning commission, department of public works, city landscape architect, a building official, city engineer and or city forester reviews the plans. The samples and annotations are sometimes shortened versions or snapshots of ordinances in the Florida Forest Service database. They should not be considered as correct legal text. In many instances we noted different terminology for the same thing.

The process we recommend for developing or revising a tree ordinance is outlined in Part I. Following the process and reviewing the bulleted ordinance components in Part I, Concepts helps determine whether there is a need to develop or revise an existing tree ordinance. It also describes the importance of setting definite goals in the development of a tree ordinance. After reviewing the material in Part I, communities will be better able to effectively use the remaining sections of this guide.

Part II Policies, shows specific ordinance provisions selected from the study that may best meet the tree management goals set by the community. Please note, this section does not present a single "model" ordinance. Instead, it is a listing of provisions from various tree ordinances that can be used to help achieve tree preservation goals. Individual ordinance provisions are briefly explained, categorized, and example text provided. Using the input of local citizens, a community can select provisions and develop language yielding an ordinance uniquely suited to that community.

This report attempts to define the nature of tree ordinances and define various technical requirements. It compares and contrasts ordinances from different parts of the state while highlighting the need for standardizing vocabulary.

Part III is a behavioral economics approach to this technical guide. Strategies designed to evaluate, present, improve and monitor the effectiveness of ordinance provision presentations to councils and commissions. Many of the evaluation practices described in this section may also be employed in the process of ordinance development described in Part I.

A truly workable and sustainable ordinance requires a Community Framework.

Public policy governing ordinance and management of the urban forest is not confined to public officials, government employees or private professionals. City residents, often coming from diverse backgrounds and experiences, have strong opinions about urban tree ordinances.

Part II includes selected examples of effective tree ordinance provisions used throughout the state. The most common types of ordinances found are:

- Street tree planting or streetscape ordinances
- Tree removal, replacement, or relocation ordinances
- Tree preservation, protection, or abuse ordinances

Another type is often classified as “view ordinance”. These tree ordinances are designed to help resolve conflicts between property owners who have trees that block views or sunlight.

Landscape requirements for Vehicular Use Areas (VUA), Historic and Preservation Trees, On-Site Parking lot design and Loading Regulations, Landscape requirements, Species Lists, Landscaping and Visual Buffering, Screen Walls, Landscape coverage and Irrigation are beyond the scope of this guide.

The guide helps to describe how tree ordinance development can be integrated with an overall community tree management program using a sample Basic, Traditional, Advanced or Ecosystem scenario ordinance menu approach.

Basic “first-generation” ordinances are useful where the political climate is not conducive to change. The purpose of the basic ordinance is to protect and enhance the aesthetic environment of the city. The intent is to improve the appearance, quality and quantity of trees throughout a city. Many of the requirements are suggestive rather than very detailed and regulatory.

Appendix: The template can be uploaded from the Florida Forest Service Urban Forestry website at: <http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/For-Communities/Urban-Forestry>

A Traditional ordinance scenario exceeds those of Basic and without a doubt Advanced ecosystem ordinances will be looked at as the future of tree ordinances.

Advanced or ecosystem ordinances are more of a policy manual using illustrations and examples to clarify the regulations. Urban ecosystem management is established through ordinance, plans and policy.

Due to Florida's Climate Hardiness Zone variation, this report does not recommend species for planting. Administrative practices and contextual concerns are not clear in the documents reviewed for this study.

Ordinance provisions are planning tools that directly address public health, safety and welfare. Communities may decide to develop other provisions to address goals unique to their situation. It is recommended simple prose be used in the initial draft ordinance. The draft ordinance should then be submitted to municipal legal staff for review. Provided is an explanation of the purpose of each ordinance provision, a list of its key elements, notes on its use and implications and example text from existing ordinances. All examples are from Florida communities.

There is no pretense of resolving the larger issues surrounding environmental/human constructs. If communities are aware of specific provisions that are regionally important or particularly exemplary that they would like to have for future inclusion in the guide, please e-mail: [Lou.Shepherd@FreshFromFlorida.com](mailto:Lou.Shepherd@FreshFromFlorida.com) or contact us by phone (850) 681-5881.

# Part I. Planning for an Ordinance

Increasingly communities are beginning to recognize tangible benefits that trees provide in the urban environment. Communities realize the need to protect and enhance their valuable tree resources. It is useful to view and manage a community's trees as a cohesive unit, the *community or urban forest*.

By themselves, tree ordinances cannot assure that the trees in and around our communities will be improved or even maintained. Tree ordinances simply provide the authorization and standards for management activities. If these activities are not integrated into an overall management strategy, problems are likely to arise. Without an overall strategy, management will be haphazard, inefficient, ineffective and the community forest will suffer.

This larger management view is commonly lacking when ordinances are developed. Local ordinances are often developed in response to public outcry over perceived problems.

A tree Ordinance is not a panacea for poor or inadequate municipal tree management. Nor is it a replacement for a comprehensive community forestry program fully supported by the local government and community residents. Properly applied, tree ordinances can facilitate good management of community tree resources. Improperly applied, ordinances can legitimize counterproductive practices and undermine the long term success of the community forest.

## Types of Ordinances

Little evidence shows tree and landscape ordinances have been reviewed in a scholarly or organized manner. There is no standard text on the subject. Two reports were researched. "A review of Tampa's Tree Regulations" (Jerrod Simpson, J.D. 2015) and a graduate thesis "A Review of Municipal Ordinances for Sustainable Development" (Marisa Romero, IFAS, 2006). Covering the Building Envelope, Landscaping, Site Development. This publication was reduced to regulatory laws of "sticks" governmental controls or "Carrots" along with "Pros and Cons."

Conclusions reached:

- To promote a successful mandatory ordinance, city or county officials must inspect and enforce ordinance standards.
- City and county governments should establish a monitoring system

to ensure compliance with these mandatory ordinances.

- Communities can begin designing their own codes by looking at what other towns and cities have implemented.
- Arguably, existing ordinances are the most significant barrier to sustainable development projects.

Mid 2016, Urban Forestry began a study of city and county tree ordinances in Florida. Based on 2010 census data, Florida reported 411 municipalities. There are 173 recognized cities as Tree City USA's<sup>®</sup> in 2015. The sample reflected about 42% of Florida cities had tree ordinances in effect in Florida at that time.

The study reviewed 54 enacted city tree ordinances in addition to a small number of proposed ordinances all enacted on or after 2000. Also found was 15 (22%) of Florida Counties have some sort of Tree Protection Ordinance on the books. (*L. Shepherd 2016*).

For the purposes of this study, tree ordinances were grouped into two basic categories:

**Street tree ordinances** primarily cover the planting and removal of trees within public rights-of-way. They often contain provisions governing maintenance or removal of private trees which pose a hazard to the traveling public. Also included in this category are ordinances with tree planting requirements.

Duty of care: The effects of an ordinance. A few little words can make a big difference in what happens to trees along a street right-of-way. A strong ordinance will protect such trees by declaring them the property of the city, and will spell out what can or cannot be done with them. In some communities, the municipality will assume all responsibility for planting, pruning and removal; in others the adjoining landowner, developer or home owner's association must shoulder these responsibilities and their costs, but must still receive city permission for some or all these treatments.

**Tree protection ordinances** are primarily directed at providing protection for native trees or trees with historical significance. They usually require a permit be obtained before protected trees can be removed, encroached upon, or in some cases, pruned.

Again, although other types of ordinances, such as view and grading ordinances, may be related to trees and other vegetation, this discussion will be limited to these two categories encompassing the overwhelming majority of all tree-related local ordinances.

In the 2016 survey of city tree ordinances, community program managers were asked about the effectiveness of their existing ordinances. Many respondents from cities with existing ordinances believed their current tree ordinance needed revision. In some cases, respondents from different programs within the same city had widely divergent opinions on the



effectiveness of their existing ordinance. Enforcement was not the only issue impacting effectiveness.

The Florida Forest Service looked to see whether each ordinance had the structural elements necessary for effectiveness. Although ordinances vary widely in form, content, and complexity, an effective tree ordinance should meet the following criteria:

### **Basic Ordinance Provisions**

*The provisions listed are basic ordinance components adopted primarily prior to 2000.*

1. Purpose and intent
2. Definitions
3. Policies regarding trees
4. Penalty for violation
5. Enforcement
6. Appeals
7. Performance evaluation of ordinance
8. Severability
9. Designate administrative responsibilities

### **Traditional Ordinance Provisions**

*This scenario is the predominant model adopted in post 2000 originated ordinances.*

Additional features that go beyond basic provisions often include:

1. A Tree preservation trust or mitigation fund and administration
2. Landscaping requirements
3. Exemptions and prohibited species
4. Tree work permits, requirements, and application reviews
5. Criteria and conditions for tree removal and relocation
6. Tree replacement chart
7. Tree protection requirements during construction
8. Root cutting techniques
9. Pruning maintenance and removal standards
10. Tree planting standards
11. Exemptions for utility companies
12. Exceptions due to emergencies
13. Nuisance trees
14. Irrigation
15. Dead or diseased tree standards

# Advanced Ordinance Provisions

## Developing a Community Forest Management Strategy

The provisions listed below are advanced components for advanced tree ordinances. Additional features that go beyond basic and traditional provisions often include:

**1. Title**

To give the ordinance a brief descriptive title.

**2. Findings**

To set forth the reasons the local government finds it necessary to adopt an ordinance.

**3. Purpose and intent**

To set forth the goals to be achieved through the ordinance.

**4. Definitions**

To define key words which are to be used in the ordinance.

**5. Determination of definitions**

To establish an authority responsible for interpreting definitions.

**6. Jurisdiction**

To set forth the jurisdiction of the local government over certain groups or classes of trees.

**7. Policies regarding trees**

To set guidelines for carrying out ordinance provisions.

**8. Local government liability disclaimers**

To avoid accepting liability for any personal injury or property damage caused by trees on private property.

**9. Interference with planting, maintenance, and removal unlawful**

To prohibit interference with persons involved in tree-related activities who are acting in their official capacity on behalf of the local government.

**10. Appeals**

To establish a procedure whereby decisions of the tree program manager can be appealed.

**11. Penalty for violation**

To establish penalties for violating provisions of the ordinance.

**12. Enforcement**

To designate the position responsible for enforcing the ordinance.

**13. Performance evaluation of ordinance**

To provide for evaluation of the success of ordinance provisions.

**14. Severability**

To prevent the whole ordinance from becoming invalid if any part of it is declared invalid by the courts.

**15. Designate administrative responsibilities**

To assign responsibility and authority for implementation and enforcement of the ordinance.

*The above Basic, Traditional and Advanced ordinance provisions are generally understood and accepted. Some examples of these Provisions are in Part 2. The following Advanced or Ecosystem Provisions are new critical concepts warranting additional discussion.*

## **16. Establish a tree board or commission**

**Purpose:** To establish a citizen advisory board, commission or committee. Tree boards provide a means to involve the public in urban forestry management. Tree boards can promote new and existing tree programs by motivating both local government and the public to support urban forest management. Typical functions of the tree board described in Part 2 will vary with the community. City staff members may be included on the tree board.

## **17. Specify cooperation between departments and agencies**

**Purpose:** To require cooperation between municipal departments in matters pertaining to tree resources.

### **Key elements:**

- List of activities that require consultation between departments
- Responsibilities of municipal departments to coordinate activities

Notes: Urban trees are subject to wide variety of potentially damaging impacts from municipal departments, utility companies and private contractors. Maintenance of above- and below-ground utilities and other infrastructure may lead to serious tree damage or death. Adverse impacts can often be minimized or avoided but only if the input of tree professionals is obtained before damage is inflicted. The urban forester or tree program manager should be given the responsibility and authority to require modifications to various activities that may adversely impact city trees.

Even if the tree program manager has this authority, it may be helpful to include this additional provision to explicitly require that departments, agencies, utilities and others communicate and cooperate with the community forest program when conducting operations affecting trees.

A. The Public Works Department shall notify the Parks and Recreation Department of any applications for new curb, gutter, sidewalk or driveway installations, or other improvements which might require the removal of or cause injury to any street tree, or interfere with the fulfillment of the street tree plan.

B. Any public utility maintaining any overhead wires, underground pipes or conduits shall obtain permission from the Director before performing any maintenance work on the wires, pipes or conduits which would cause injury to street trees. The public utility shall in no way injure, deface, prune or scar any street tree.

C. To facilitate the planting and maintenance of trees in new subdivisions, developments, streets and public areas, the planning director shall advise and cooperate with the landscape supervisor in carrying out the provisions as set forth.

## **18. Develop a comprehensive management plan**

**Purpose:** To develop an integrated management plan for the urban forest.

**Key elements:** Responsibility for developing and updating the comprehensive management plan. Method by which the plan is to be adopted and revised. List of elements to be included in the plan.

**Notes:** The comprehensive tree management plan is the keystone of any tree program, because it lays out the framework for tree management in the community. Authority for developing and implementing the plan should be assigned. Some elements to be considered in the management plan include:

- Inventory of existing trees
- Identification of planting sites
- Prioritized planting plan
- Standards for tree selection, siting, planting, and pruning
- Scheduled maintenance for new and established trees
- Inspection program for tree-related problems and hazards
- Guidelines for protecting existing trees from construction-related damage
- Integrated disease and pest management strategies
- Reforestation plans allowing for phased removal and replacement as trees become a liability
- Plans for utilization of waste wood

## **19. Resolution of conflicts between trees and structures**

**Purpose:** To set priorities for solving conflicts between trees and street improvements.

**Key elements:** Priority of trees over street improvements (hardscape). Responsibility for approving corrective measures.

**Notes:** Tree-related damage to street improvements is common in many communities.

Although tree roots are blamed for the cracking concrete and invading sewer lines, it is equally valid to point out that these structures fail because they have not been properly engineered to function in a landscape that contains growing trees and their roots. Unfortunately, the approach in too many cities has been to remove trees rather than to find a way to redesign structures to be compatible with trees. This provision can be used to establish the priority of trees over hardscape. Individual property owners normally do not have the resources or expertise to develop satisfactory solutions to tree- hardscape conflicts on their own. Therefore, the responsibility for correcting conflicts between trees and street improvements should not be assigned to the property owner. However, if the conflict results from actions by a property owner which violate municipal tree planting standards, the city may require the property owner to bear some or all the cost of corrective action. When roots of a tree planted within the planting area damage city curbs, gutters and sidewalks (including driveway ramps), the city shall

be responsible for appropriate corrective measures which are least damaging to the tree. Where sidewalk or curb damage due to tree roots occurs, every effort shall be made to correct the problem without removing or damaging the tree. The city forester shall be responsible for developing or approving corrective measures in consultation with the city engineer.

## **20. Responsibilities of property owners**

**Purpose:** To set forth any responsibilities for maintenance of trees, either public or private, assigned to property owners.

**Key elements:** Designation of responsible parties and assignment of responsibilities. Performance standards for maintenance activities.

Notes: In many communities, residents are responsible for some types of tree maintenance, particularly for trees which extend over public rights-of-way. In such cases, it is the responsibility of the municipal tree program to provide information on the types of care to be provided and complete instructions on proper methods. For example, if residents are responsible for tree trimming to maintain clearance for pedestrian and vehicular traffic, standards for clearances and information on proper pruning methods should be readily available to residents. Even if standards are set and distributed, the municipality may still have little control over the quality of maintenance performed by residents. As an alternative, the municipality may simply require residents to notify the tree program when problems occur, and have work done by municipal crews or contractors. This allows for greater control over the quality of tree maintenance.

## **21. Licensing of private tree care firms**

**Purpose:** To improve care of private trees by ensuring that firms performing tree maintenance are qualified and have appropriate liability insurance coverage.

**Key elements:** Types of tree maintenance that require special licensing  
Requirements for professional qualifications:

- Liability insurance requirements
- Method of documentation
- Authorization to suspend or revoke licenses for violations.

Notes: Many jurisdictions require proof of insurance and professional qualifications only of firms performing work for the local government. Others, as shown below, extend insurance requirements to all tree service firms operating within the community. Improperly performed tree maintenance work, including pruning, cabling and removal, can cause property damage and endanger public health and safety. Therefore, many community tree ordinances require that firms engaged in tree work carry liability insurance. Any person, firm or corporation engaged in the business of removing city trees shall carry public liability and property damage insurance in an amount to be determined by the city council and policies or certificates thereof shall be filed with the city clerk.

## Method of Data Collection

In 2016, the Florida Forest Service Urban and Community Forestry Programs section began collecting data on the status of Florida cities and counties using Florida Forest Service files, Arbor Day Foundation's Tree City USA® and Municode resources. Reference points are stratified based on 2010 census data. Ordinances selected for study originated on or after 2000. These were randomly analyzed. Municipal tree ordinances enacted prior to 2000 were excluded from analysis.

## Effectiveness of Existing Ordinances

A clear statement of goals is essential, since goals provide the basis for interpreting the ordinance and evaluating its effectiveness. Only 55% (30) of reviewed ordinances began with a stated purpose which can be interpreted as the goal of the ordinance. Goals were most commonly lacking in street tree ordinances.

Among street tree ordinances that did list a goal, it was often of the form, *"to establish rules and regulations governing tree planting, maintenance and removal on the public right of way"*. This type of goal suggests that the ordinance is seen as an end rather than as a tool to help achieve certain community forestry goals. Some street tree ordinances show a clear link with a wider management strategy, as indicated by a goal such as *"to create a master plan governing tree planting, maintenance, and removal"*. Tree protection ordinances nearly always begin with a stated goal, such as *"to prevent wanton destruction of trees"*, or *"to preserve as many trees as possible during the development process"*. However, goals such as these may be too general to allow for meaningful evaluation. How many are "as many as possible"? The lack of clear, specific goals is a common shortcoming of many tree ordinances.

### Basic Performance Standards

Excessively vague standards (e.g., "as much as possible") may not only be unenforceable, but also may not survive a legal challenge. While avoiding the pitfall of ambiguity, an ordinance should also avoid slipping into the abyss of excessive technical detail. Many ordinances have focused on very detailed implementation standards instead of setting basic performance standards. For example, many ordinances include lists of species that are allowed or prohibited for use as street trees. Others specify the size of planting stock to be used in plantings. An easy and immediate improvement would be to amend tree ordinances using exotic species rosters with a reference like: *Exotic Plants. No plant listed as an invasive species under Florida Exotic Statute 581.091, or as Category I invasive exotic species by the Florida Exotic Pest Plant Council (FLEPPC) shall be installed.* Implementation standards such as these change as new methods and materials are developed and old ones fall out of favor. Given the continuous bombardment of new invasive threats, ordinances that favor lists quickly become outdated.

## **Enforcement**

Enforcement is an important aspect of every ordinance. Only slightly more than half of the ordinances received contained an enforcement element. Although 61% (33) of the ordinances specified penalties for violations, only 50% (27) designated a position or positions responsible for enforcement. Thus, many tree ordinance provisions may not be enforced because nobody is specifically charged with this duty.

In ordinances with enforcement provisions, many kinds of penalties are employed. Fines, jail terms, and forfeiture of performance bonds are among the penalties invoked in both street tree and tree protection ordinances. Many jurisdictions also require specific replacement plantings as penalties. In some street tree ordinances, occupancy permits are withheld until required trees and landscaping are satisfactorily installed. Many of the penalties available appear to be sufficient to help deter offenders, but only if consistent enforcement makes it likely that violators will be cited and penalized.

## **Flexibility**

While ordinances should set basic performance standards, it is important they allow for flexibility. If the tree ordinance sets objective performance standards, it can also direct the community arborist or forester to implement the standards by making decisions on a case-by-case basis. This can reduce the need for overly detailed implementation standards and allows for the flexibility to make decisions based on site-specific physical and biological factors. Even if a community does not have personnel with the necessary expertise on staff, the ordinance can allow for the input of qualified professionals on specific issues. For example, many tree protection ordinances require a report by a qualified consultant as a part of the permit process. Outside technical consultants should work for and be responsible for representing the interests of the community, not clients that may have a financial interest tied to tree removal or damage (e.g., a property owner or developer).

About 40% of the ordinances evaluated have a process for appealing decisions. Appeal filing fees ranged from \$100 to \$500. The appeal process provides a degree of flexibility as it serves as a check against the authority of the tree program manager. Ideally, this helps to ensure that decisions are based on all pertinent information, and they stand on technical merit. Unfortunately, appeals may also serve to undermine good urban forest management if they routinely allow political pressure to override the decisions of competent tree specialists.

## Comprehensive Management Strategy Through Adaptive Management and Monitoring

**Purpose:** To promote proper tree care in the urban forest through education, enforcement and development of a citywide tree matrix.

### Key elements:

1. Government efficiency; public – private partnerships
2. Support communities
3. Increase social, environmental and economic benefits of the urban forest by reducing costs

Few existing ordinances have been developed as part of an integrated tree management strategy. Only 11% (6) (Miami, Pompano Beach, Safety Harbor, St Petersburg, Sunrise and Tampa) of the Florida ordinances reviewed showed clear evidence they were an element of a comprehensive management strategy. Without this underlying strategy to guide the process, inappropriate provisions may be included, or necessary provisions may be omitted. Furthermore, local governments may unsuccessfully use a tree ordinance to pursue goals that are more readily achieved through other means. The tree ordinance is often seen as an end in itself rather than as one of a number of tools used to attain a healthy, vigorous and well-managed community forests. The lack of integration between urban forest management and tree ordinances is probably the most prevalent and serious problem with tree ordinances overall. An ordinance is not a panacea for poor or inadequate management of community tree resources.

Properly applied, an ordinance can help facilitate good management. Improperly applied, ordinances can legitimize counterproductive practices, provide disincentives for tree conservation and undermine the long-term sustainability of the urban forest. By focusing on community forest management, rather than simply regulation, communities can determine whether an ordinance is necessary and what its role should be. By following the process presented above in **Developing a Community Forest Management Strategy**, communities can develop effective ordinances that are uniquely suited to meet their specific needs.

Elements of a comprehensive management plan should include a set of objectives promoting:

- Community support and ordinance success require periodic assessment of the community's tree cover
- Consider the street trees as infrastructure to preserve and protect these trees as a community asset



- Develop a greening program on increasing porous surfaces and increasing tree cover in parking lots
- Low impact development (LID) design
- Incorporate trees in stormwater management programs

Community support is critical to ordinance effectiveness, but community support cannot be legislated into an ordinance. Rather, the ordinance must be developed within the context of community values and priorities if it is to enjoy public support. Even a technically correct tree ordinance is apt to be ineffective without public support.

Passing a highly restrictive ordinance in a non-supportive community is not only politically difficult, but may be counterproductive. (Rossi, 1990) described such a situation that occurred after the passage of a tree protection ordinance. Local citizens attempted to circumvent the ordinance by cutting down trees before they attained the diameter specified for protection in the ordinance.

As a practical matter, most tree ordinances rely heavily on voluntary compliance. Few communities would support the concept of a patrolling "tree cop" that seeks out violations. However, citizens in many communities are willing to voluntarily comply with restrictions they perceive as reasonable, and report obvious violations to protect their local tree resources. To be successful, tree ordinances should not impose regulations that most local citizens are unwilling to support.

The establishment and maintenance of an optimal level of age and species diversity requires the development of, and adherence to, a complete urban forest or street tree master plan. To address this goal, the plan should provide for species diversity in new tree plantings, a significant change from single species blocks that are common in many communities. The master plan should also describe how removal and replanting throughout the community can be phased to attain a good mix of tree maturities.

#### **Key Objectives of Ecosystem Ordinance Scenarios:**

- Native Vegetation Management – Preservation and enhancement of local natural biodiversity. Tree planting and establishment on public and private land – Tree planting and establishment by objective criteria.
- Tree Species Diversity - Establish a diverse tree population. - No species represents more than 10% of the entire tree population citywide.
- Structural Diversity of Trees - Provide for uneven aged distribution of citywide tree population with 25% in each of the four relative diameter breast height (dbh) classes.
- Wind Resistance of Tree Species - Reduce disruption of social and economic services; reduce cost of cleanup, protect private property and human well-being. - Having greater than 80% of trees rated in highest category of wind resistance.

- Natural Areas - Support maintenance and enhancement of regional biodiversity, ecological health and social well-being. Implementation of stewardship plan in effect for each publicly owned natural area focused on public use and sustaining the ecological structure and function of the feature.
- Canopy Cover - A popular target for urban forest canopy is 40% (American Forests 2009). The ordinance should reflect conducting a tree canopy study every five (5) years.
- Tree Site Suitability – All trees are planted in sites that will maximize current and future benefits
- Risk/Hazard Abatement - Tree risk management language addressing abatement of hazardous or public nuisance trees.
- Stormwater management – Erosion control
- Storm readiness – Hurricane resistance

Notably, Ecosystem ordinances will be crafted to aid in stabilizing community's ecosystem services. These include air purification, storm water runoff, groundwater recharge, green storm water infrastructure, glare reduction, reducing yard waste, improving water quality, reducing water consumption and the urban heat island effect. All outcomes are based in science, rather than aesthetics. Additionally, the importance of planning for, and adequate funding of, tree maintenance and protection cannot be overstated.

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## **PART II**

# Policies

## Recent Florida Ordinance Provisions

### Tree Protection Ordinance Categories

**Purpose and Intent** to set forth goals to be achieved through ordinance.

**Tree protection ordinances** are primarily directed at providing protection for native trees or trees with historical significance. They usually require that a permit be obtained before protected trees can be removed, encroached upon, or in some cases, pruned.

**Street tree ordinances** primarily cover the planting and removal of trees within public rights-of-way. They often contain provisions governing maintenance or removal of private trees which pose a hazard to the traveling public. Also included in this category are ordinances with tree planting requirements.

**Enforcement** to assign responsibility of implementation and establish penalties for violating provisions of the ordinance.

**Tree Trust Funds** establishes a tree trust fund where people can make payments in situations where they cannot replace a removed tree on site.

**Tree Board** acts in an advisory capacity to the city commission and city staff on matters relating to urban forestry.

**Tree Services and Arborists** individuals and companies providing tree services.

**Supplement: Model Public Tree Care Ordinance for Tree City USA**®  
**Tree City USA**®Florida Communities—Optional Wording.

*All example provisions are provided for illustration, and are not necessarily "model" provisions. We recommend that you use the examples, key elements, and notes as a starting point for developing language suited to meet your local needs. We realize the 27 provisions described here will not cover every situation.*

## **Purpose and Intent**

### **2016-Miami Beach-Purpose and Intent**

#### **Sec. 46-57. - Purpose and intent.**

It is recognized that trees are a vital part of the City of Miami Beach's infrastructure, providing numerous environmental, economic, and social benefits. Trees improve air quality, save energy by reducing air conditioning costs, ameliorate high urban temperatures, reduce stormwater run-off, increase property values, improve productivity, reduce stress and crime, and beautify residential and commercial neighborhoods. Trees decrease urban noise, encourage tourism and economic growth, preserve community character and identity, provide habitat for wildlife, and shade pedestrian walkways. It is the purpose and intent of this division to establish policies, regulations and standards to ensure that the City of Miami Beach, its residents and its visitors will realize the full benefits of a healthy, well-managed urban forest. The provisions of this division are enacted to:

(1)

Promote the establishment and maintenance of the optimum sustainable amount of tree cover on public and private lands.

(2)

Establish and maintain diversity in tree species and age classes to provide a stable and sustainable urban forest.

(3)

Minimize the removal or loss of non-specimen specimen and heritage trees.

(4)

Require mitigation for the removal of non-specimen specimen and heritages trees on public and private property.

(5)

Establish procedures to designate and protect heritage trees of unique or intrinsic value to the community, as defined in this division.

(6)

Maintain City of Miami Beach trees in a healthy and non-hazardous condition through good management practices.

(7)

Minimize maintenance costs and damage to sidewalks, streets, and other infrastructure by planting tree species that are appropriate for existing site conditions and available growing space.

(8)

Preserve the community's character and quality of life well into the future.

(Ord. No. 2014-3904, § 1, 11-19-14).

## 2015-Safety Harbor-Tree Protection-Purpose and Intent

### 153.00 - *Tree protection and preservation - Purpose and Intent*

(A)

The purpose of this Section 153.00 et seq. together with Section 154.00 et seq. is to establish regulations in the City that will have the effect of *protecting*, promoting and maintaining a healthy, diverse and mature canopy of native and naturalized hardwood and evergreen *tree* species. *Trees* preserve the ecological balance of the environment, control erosion, sedimentation and stormwater runoff, provide shade, reduce heat and glare, reduce flooding, enhance property values and aesthetics, abate noise pollution, and buffer incompatible land uses.

(B)

The intent of this Section 153.00 et seq. and Section 154.00 et seq. is to *protect* the general health, safety, and welfare of the citizens of Safety Harbor by establishing minimum standards for the *protection* and preservation of *trees*, ensure the adequacy of *tree* numbers, preserve the canopy, encourage the planting of new *trees*, the *protection* of natural plant communities, and the installation and continued maintenance of landscaping within the City in order to:

(1)

Improve the aesthetic appearance of commercial, governmental, industrial, and residential areas through the incorporation of landscaping into development in ways that harmonize and enhance the natural and manmade environment;

(2)

Improve environmental quality by recognizing the numerous beneficial effects of *tree protection* and preservation, and landscaping upon the environment, including:

(a)

Improving air and water quality through such natural processes as photosynthesis and mineral uptake;

(b)

Maintaining permeable land areas essential to surface water management and aquifer recharge, including reduction in stormwater runoff;

(c)

Reducing and reversing air, noise, heat and chemical pollution, including the removal of atmospheric carbon dioxide, through the biological filtering capacities of *trees* and other vegetation;

(d)

Promoting energy conservation through the creation of shade, thereby reducing heat gain in or on buildings or paved areas;

(e)

Reducing the temperature of the microclimate through the process of evapotranspiration; and

(f)

Encouraging the conservation of water through the use of site specific plants, various planting and maintenance techniques, and efficient watering systems.

(3)

Provide direct and important physical and psychological benefits to human beings through the use of landscaping to reduce noise and glare, and to break up the monotony and soften the harsher aspects of urban development;

(4)

Establish procedures and standards for the administration and enforcement of these sections;

(5)

Promote the creative site development concepts in order to promote water and energy conservation;

(6)

Preserve existing natural *trees* and vegetation and incorporate native plants, plant communities and ecosystems into landscape design where possible; and

(7)

Promote landscaping methods that provide for the preservation of existing plant communities, re-establishment of native plant communities, use of site specific plant materials, use of pervious paving materials and other xeriscape concepts in order to promote water conservation.

(C)

It shall be unlawful to cut down, damage, poison, or in any other manner, destroy or cause to be destroyed any *trees*, except in accordance with the provisions of Sections 153.00 et seq.

(Ord. No. 2015-03, § 1, 3-16-2015)

## **2015-St. Petersburg-Purpose and Intent**

### **16.40.060.1.1. - Purpose.**

The purpose of this section is to improve the appearance, environment, character and value of the total urban area within the City by protecting, promoting and maintaining a healthy, diverse and mature canopy of native and naturalized hardwood and evergreen tree species and by requiring the installation and maintenance of vegetation in a manner which conserves water.

Implementation of these requirements reduces water consumption, stormwater runoff, impervious surface area, 'heat island' effects, paved surfaces, vehicular use areas and the visual impact of large building masses; increases the urban canopy, improves environmental and water quality, provides a more pedestrian friendly environment, and enhances the overall aesthetic appearance and value of the City, thereby promoting the public health, safety and general welfare. Water conservation shall be achieved by the selection of appropriate plant materials, the removal of nuisance and invasive vegetation, the use of water-efficient landscaping and irrigation systems, the use of low impact development landscape designs and appropriate maintenance.

## **2013 Pompano - Purpose and Intent**

### **155.5201. PURPOSE**

It is the purpose of this Part to establish minimum standards for the development, installation, and maintenance of landscaping and tree preservation that protects and enhances property values, the environment, and aesthetic qualities in the city, and otherwise promotes the public health, safety and general welfare. The standards are specifically intended to ensure and promote the planting, maintenance, restoration, and survival of trees, shrubs, groundcover, and other landscaping that will.

Mitigate against erosion and sedimentation by stabilizing the soils through root systems that hold and consolidate soil and other loose earthen materials;

Reduce storm water runoff and associated costs by intercepting, dispersing, and absorbing rainfall and slowing down surface flow;

Reduce water pollution by filtering pollutants from storm water runoff;

Conserve water supplies by allowing more rainfall to stay in the water table and minimizing water use for landscaping maintenance;

Moderate urban heat island effects by shading buildings and paved surfaces lowering ambient temperatures through transpiration.

Improve air quality by removing carbon dioxide and pollutant gases from the air and producing oxygen that helps dilute air pollutant concentrations;

Restore soils and land denuded as a result of construction or grading;

Maintain the continued vitality of natural habitats for the propagation and protection of wildlife, birds, game, and fish and other aquatic life;

Buffer excessive or undesirable noise from street traffic or adjacent land uses and activities by absorbing and deflecting sounds;

Limit glare created by exterior lighting;

Screen undesirable views;

Provide a sense of privacy from neighbors and the street;

Provide human scale to urban environments by breaking up the visual impact of structures and parking lots;

Help differentiate streets and other areas of the public realm from private lands;

Create civic identity and special places that differentiate the city from other urban environments;

Stimulate economic development by increasing the city's attractiveness and quality of life to shoppers and employers;

Safeguard and enhance property values and protect public and private investments;

Protect city residents and visitors from personal injury and property damage, and avoid interruption of electrical and other utility services; and

Support the core components of crime prevention through environmental design (CPTED)-natural surveillance, natural access control, and territoriality.

## **Tree Protection General**

### **2015- Lady Lake-Tree Protection**

#### **Sec. 10-5. - *Tree protection.***

a)

*Prohibitions.* Unless exempted herein, it shall be unlawful and subject to the penalties provided herein for any person, directly or indirectly by another on his behalf, to:

1)

Remove, relocate, destroy, or damage any protected tree as defined herein on any site or tract (including single-family, residential lots) without first obtaining a clearing and tree permit or development order;

2)

Perform any land clearing or grubbing unless a clearing and tree permit, if required, has been issued and is posted onsite; or

3)

Perform tree removal, land clearing, grubbing, grading, excavation, construction, or to make or install any improvement upon any site or tract, regardless of the existence of valid permits or approvals for the given activity, unless each protected tree to be preserved pursuant to this chapter has been marked by a



highly visible band, and unless all protected areas established pursuant to this chapter have been surrounded by a protective barrier,

4)

Attach anything to a protected, historic, or specimen tree other than supportive wires, braces or other similar non-injurious materials,

5)

Cause or allow the disposal of waste material such as paint, oil, solvents, asphalt, concrete, mortar or any other material harmful to the life of a protected, specimen or historic tree within the dripline of such tree or groups of trees.

6)

Use climbing spurs or other similar device to aid in the climbing of a live protected tree, where such device causes the puncture or tearing of tree bark.

7)

Introduce any type of poison or reactive material to a protected tree for the purpose of causing it to die or become weakened.

8)

Prune a protected canopy tree in a manner which will not allow the tree to reach a mature canopy spread. Excessive shearing, pruning or shaping includes but is not limited to hat racking, topping, poodle trimming, lion's tailing and pollarding. Code enforcement shall cite property owners who are found to have improperly trimmed or pruned protected canopy species Citation shall require appearance before the Special Magistrate at which time an eighty-seven dollars (\$87.00) administrative fee shall be assessed and the violation will be documented for a one (1) year follow-up to revisit the tree and assess the tree's condition. At time of the one (1) year follow-up inspection, should the tree be found not to have recovered to a satisfactory state of health as evidenced by field inspection and by documentation from a certified arborist or registered landscape architect at the owner's expense, the owner shall file a tree removal permit and the tree shall be removed immediately. Should the tree be found to be "historic" (in excess of 36" DBH) a five hundred dollars (\$500.00) fee shall be assessed if by removing the tree causes the minimum canopy tree per lot requirements not to be met.

These regulations apply to newly installed trees as well as established trees.

b)

*Exemptions.* None of the following exemptions shall apply to any upland native plant community conservation area or wetland conservation area. The burden of proving entitlement to any particular exemption shall lie with the person claiming use of the exemption, in the event the exempted activity ever becomes subject to an enforcement action. Notwithstanding anything to the contrary within this Code, the following activities shall be lawful without application or issuance of a clearing and tree permit:

1)

The removal, trimming, pruning or alteration of any unprotected tree as defined herein or other vegetation as necessary for:

A)

The clearing of a path, not to exceed four (4) feet in width, to provide access or view necessary to conduct a survey or site examination for the preparation of subdivision plats, site plans, or tree surveys;

or

B)

The clearing of a path, not to exceed ten (10) feet in width, to provide vehicular access necessary to conduct soil testing, provided that the clearing or removal is conducted under the direction of a Florida registered surveyor or engineer.

2)

Routine landscape maintenance, such as trimming or pruning of vegetation, which is not intended to result in the eventual death of the plants, mowing of yards or lawns, or any other landscaping or gardening activity which is commonly recognized as routine maintenance or replacement.

3)

The removal, trimming, pruning or alteration of any tree or vegetation in an existing utility easement or right-of-way, provided such work is done by or under the control of the operating utility company and said company has received all necessary licenses or permits to provide utility service within the easement.

4)

The removal, pruning, trimming or alteration of any tree or vegetation for the purpose of maintaining existing access to a property.

5)

Any activity conducted by a lawfully operating and bona fide commercial nursery, tree farm, agricultural operation, silvicultural operation, ranch, or similar operation pursuant to State and Town requirements, when the activity occurs on property owned or lawfully occupied by the person conducting said activity and is done in pursuit of said activity. This exemption shall include the purposeful removal of a tree or trees for their permanent relocation at another site undergoing development. When land clearing or tree removal has been performed under this exemption based upon the use of property for an agricultural or silvicultural operation, the following shall apply:

A)

No land development order shall be approved for any non-agricultural or non-silvicultural use or improvement on the same site within two (2) years of the completion of such land clearing or tree removal.

B)

Pertaining to silviculture, operations are encouraged to implement a State Division of Forestry approved management plan, including a reforestation plan for harvested lands.

C)

Pertaining to silviculture and agriculture, operations within wetlands will need to secure a Notice of Intent from the St. Johns River Water Management District before any clearing or harvesting is initiated.

D)

Pertaining to agriculture, operations are encouraged to implement a Soil and Water Conservation District approved conservation plan, including the use of Best Management Practices, as applicable to the specific area being cleared.

E)

Trees proposed to be removed in order to construct improvements not reasonably related to bona fide agricultural and silvicultural purposes regardless of when or by whom construction is planned, are not exempt from these provisions.

6)

Hazardous trees: If any tree is determined to be in a hazardous or dangerous condition so as to endanger the public health, safety or welfare and requires immediate removal authorization may be given by the Town Manager or his/her designee pursuant to the following procedures:

A)

A report by a certified arborist or registered landscape architect stating the tree is in a hazardous or dangerous condition through disease or damage is required prior to removal and shall be submitted to the Town Manager or designee.

B)

Replacement requirements herein required apply to any tree or group of trees removed.

C)

Upon approval of the Town Manager or designee that the tree is in a hazardous or dangerous condition, the tree may be removed, however, the owner must continue to fulfill permit requirements.

7)

Any tree listed within the Undesirable (Prohibited) Tree list, regardless of size.

8)

Trees six (6) inches DBH or less, including those listed as Acceptable Plants in this chapter.

9)

Trees may be removed without a permit in an emergency situation, as determined by the Town Manager or his/her designee, when a tree is damaged by a hurricane, tornado, tropical storm or other weather event and the tree presents a danger to the public. Trees damaged in a hurricane, tornado, tropical storm or other weather event must be removed immediately after the event. Any tree damaged under this item that has not been removed within 60 days of the event will be required to obtain a permit under item No. 6) above.

10)

Stands of pine (*Pinus* spp.) planted or occurring naturally which would be used in a silvicultural activity are subject to compliance with the most current edition of the Florida Department of Agriculture and Consumer Services silvicultural best management practices (BMP's) described in *Silviculture Best Management Practices* published by the Florida Department of Agriculture and Consumer Services. This publication is hereby adopted and included by reference herein.

## **Tree Removal**

### ***2016-Fort Lauderdale-Tree Removal***

Sec. 47-21.15. - *Tree removal.*

A.

*Tree removal.*

1.

It shall be unlawful to remove a *tree* described as follows without first obtaining a *tree* removal permit:

a.

A dicot or conifer *tree* having a diameter of three (3) inches or more or a monocot having eight (8) feet or more of wood, on other than a developed one family residential lot;

b.

On a developed one family residential lot, if:

i.

The *tree* is to be removed in anticipation of redevelopment and it is a dicot or conifer *tree* having a diameter of three (3) inches or more or a monocot having eight (8) feet or more of wood;

ii.

No redevelopment is anticipated and the *tree* to be removed is a dicot or conifer having a diameter of eight (8) inches or more measured four and one-half (4½) feet above grade; or

iii.

A palm in the genus of *Cocos*, *Roystonea* and *Phoenix* (except *roebellini*) with eight (8) feet or more of wood. For the purposes of this section, redevelopment is defined as a change of use, an added use such as an additional living unit or an office, or remodeling or demolition of more than fifty (50) percent of the existing interior. Room additions to a structure, which will continue as a one family use do not constitute redevelopment. An application for a building permit to redevelop a one family property within twelve (12) months of previously unpermitted *tree* removal shall be construed as anticipation of redevelopment and will require *tree* removal permits and equivalent replacement.

2.

Application for a *tree* removal permit shall be made to the department. Upon receipt of an application for *tree* removal, the department shall determine the equivalent replacement or equivalent value of each *tree* to be removed. No permit nor replacements shall be required for removal of *Schinus* spp. (*Pepper Trees*, Florida Holly), *Metopium toxiferum* (*Poison Wood*), *Casuarinas* spp. (*Australian Pine*, *Beefwood*), *Melaleuca* spp. *quinquinervia* and *M. leucadendron* (*Paper Bark Trees*), *Euphorbia tirucalli* (*Pencil Tree*), *Bischofia javanica* (*Bischofia*, *Bishopwood*), *Acacia auriculaeformis* (*Earleaf Acacia*), *Araucaria excelsia* (*Norfolk Island Pine*), *Cupaniopsis anacardioides* (*Carrotwood*) or *Brassia actinophylla* (*Schefflera*).

3.

Effort shall be made to design around existing, large, desirable *trees*. If, as determined by the department, there are large desirable existing *tree(s)* and the proposed placement of the site plan elements will not save such *tree(s)* and sufficient root system to support the *tree(s)*, and such *tree(s)* are capable of being protected by a reasonable modification of said plan, then a *tree* removal permit may be denied by the department. In addition, if a permit is sought to remove an existing, large, desirable *tree* because its root system is causing damage to the associated sidewalks, paved areas, or septic systems, or if falling *tree* debris is staining nearby surface area, then the *tree* removal permit may be denied by the department if alternatives such as sidewalk bridging, canopy reduction, or trimming have not been considered or attempted, and such action would address the problem while *preserving* the *tree*. An alternative or redesigned site plan shall then be submitted.

4.

The department shall issue a *tree* removal permit when the applicant for such permit has agreed to fulfill one (1) of the following requirements:

a.

That the *tree*, if transplanted, will be moved by the applicant following the American National Standards Institute A-300 standards or similar accepted standards as published, to another location within the city and guaranteed by the permit holder for one (1) year for *trees* of less than or equal to six (6) inches in caliper and for two (2) years for *trees* greater than six (6) inches in caliper.

b.

That the *tree*, if destroyed, will be replaced by *trees* of equivalent replacement, as determined by the department, planted on the site from which the *tree* was removed. Sufficient room shall remain on the site to allow replacements to establish a mature canopy spread, based on usual growth characteristics of the species. A replacement planting plan may be required.

c.

That the *tree*, if destroyed, will be replaced by new *trees* of equivalent replacement upon public lands and guaranteed by the donor for three hundred sixty-five (365) days. The replacement species, size and planting location shall be determined by the department.

d.

That a *tree*, if destroyed, will be replaced by a container grown *tree* or *trees* of equivalent replacement delivered to the city nursery or other location. The delivery location, as well as the replacement species and size, shall be determined by the department.

e.

That the *tree*, if destroyed, will be replaced by the applicant by providing the equivalent value to the city's *tree* canopy trust fund.

f.

That a specimen *tree* having a caliper measurement of eighteen (18) inches or more shall be limited to the option of providing equivalent value by cash only deposited to the *tree* canopy trust fund at the time the removal permit is issued.

5.

Any *tree* removed without a permit having first been issued by the department shall be replaced by equivalent replacement or equivalent value. If the *tree* removed was a *tree* required by ordinance, the equivalent replacement shall be made by planting the largest *tree* reasonably available upon the site. Any remainder of equivalent replacement shall be planted on public property by the violator, at a location determined by the department and guaranteed for three hundred sixty-five (365) days. If the *tree* removed was a nonrequired *tree*, equivalent replacement or value shall be provided in accordance with subsection A.4.

6.

In the event that insufficient trunk remains of the removed *tree* so that equivalency cannot be determined thereby, size and equivalency shall be estimated based upon *trees* of the same species existing in the vicinity, considering, among other things, aerial photographic records and other available data relative to the area.

7.

Failure of an applicant to replace a removed *tree* within sixty (60) days after being notified by the department shall be a violation of this section. Removals necessitated by permitted construction may be replaced after the sixty-day limit, but prior to the issuance of a certificate of occupancy or final use approval.

8.

*Trees* which have been planted and are being grown in a state-certified plant nursery or botanical garden for sale to the general public and are being transplanted in order to be utilized as landscape material do not require *tree* removal permits.

9.

A monetary guarantee may be required to insure compliance with requirements. This bond, cash, letter of credit, or certificate of deposit in favor of the city shall be computed based upon the equivalent value of the *tree* or *trees* in question. The subsequent deposit of this monetary guarantee into the *tree* canopy trust fund shall immediately fulfill *tree* replacement requirements. Otherwise, when *tree* planting is used to fulfill the *tree* replacement conditions, the security shall be held by the city and the guarantee period shall extend at least three hundred sixty-five (365) days past the replacement planting date. The monetary guarantee shall be in addition to any bond required by any other governmental entity.

10.

In the event of storms, accidents or other acts of God of an emergency nature by reason of which life, limb or property is in immediate jeopardy, or for *trees* which have died due to lightning, disease, storm damage, or other natural causes, part or all of the terms and provisions of this section may be waived by the department.

## **2016-Fort. Lauderdale-Tree Removal**

### **Sec. 47-21.16. - Removal of *trees* and dead *trees* constituting a public nuisance.**

A.

The existence of any *tree*, dead *tree* or stump upon any parcel of land within the city which threatens or endangers the public health, safety or welfare, or which could foreseeably cause the spread of disease or infestation to surrounding plant life, is hereby prohibited and declared to be a public nuisance.

B.

The department shall give notice to the owner upon whose parcel of land such nuisance is located, advising the owner of the same.

C.

Such notice shall be served by personal service or certified mail. In the event that the address of the owner is unknown or such certified mail is returned unclaimed or refused, such notice may be served by posting the same in a conspicuous place on the premises upon which the nuisance is located.

D.

Such notice shall command the owner to forthwith remove such *tree*, dead *tree* or stump no later than thirty (30) days after receipt or posting of the aforementioned notice, whichever is applicable. In the event that such nuisance is not removed by the owner, the city may remove the same or have the same removed and the cost thereof shall constitute a charge and lien against the owner's property to the same extent and character as the lien now granted by law for special assessments for the cost of local improvements.

E.

Liens shall be forthwith due and payable, unless the time for payment thereof shall be extended by the city commission, and there shall be applicable thereto the same penalties and rights for sale and forfeiture as may be provided by law for special assessments for the cost of local improvements.

F.

Each day any such violation exists shall constitute a separate offense.

## **2011-Coral Gables-Tree Removal**

### **Sec.82-31. - Application procedure for tree removal unrelated to building permit applications.**

(a)

*Applicability.* Tree removal permits, not sought in conjunction with building permits, shall be obtained by making application therefor on a form prescribed by the city tree preservation agency, prior to the removal, relocation or replacement of trees from or on the following types of property:

(1)

All vacant or undeveloped sites.

(2)

All property to be redeveloped.

(3)

All property developed pursuant to this article.

(4)

The street yard areas of all properties developed with single-family and two-family dwellings not included under subsection (a)(3) of this section.

(5)

The yard areas of all developed property not included under subsections (a)(3) and (4) of this section.

(6)

All property within a designated preservation district.

(7)

All rights-of-way, public or private.

(b)

*Information to be supplied by applicants.* Applicants seeking tree removal permits under this section shall submit as an attachment to their application a tree survey of the site prepared by a registered land surveyor or landscape architect. (Tree surveys for developed one- and two-family sites, where such sites are subject to the provisions of this article, may be prepared by the property owners). Such survey shall show the location of all existing trees upon the site, which meet the dimensional requirements of section 82-29. Tree information shall be summarized in a legend form and shall contain the variety, trunk circumference, height and location, referenced to structures of all trees shown on the survey.

Groups of trees less than three feet apart may be designated as clumps, with the exception that any tree with a trunk circumference of 30 inches or more must be specifically designated. For sites on which tree removal activity is to occur on less than the entirety of the site, the tree preservation agency may provide that the tree survey exclude those portions of the site determined not to be affected by the tree removal or clearing activity.

(c)

*Application review.* Upon receipt of a proper application, the tree preservation agency shall review the application, which review may include a check of the site and referral of the application for recommendation to other appropriate administrative departments or agencies. The tree preservation agency shall render a decision on the application within ten working days of its receipt (assuming the application is complete upon its submission).

(d)

*Circumstances justifying issuance.* Tree removal permits under this section may be issued in the following circumstances:

(1)

Where the tree, due to natural circumstances, is no longer viable, is in danger of falling, is too close to existing structures so as to endanger such structures, interferes with utility services, creates unsafe vision clearance or constitutes a health hazard; or

(2)

Where the tree will be relocated, replaced with a suitable substitute tree or otherwise preserved; or

(3)

Where in consideration of the factors set out in subsections (e)(2)a through (e)(2)g of this section, the reviewing agency determines that the issuance of the permit is justified.

(e)

*Relocation or replacement.* As a condition to the granting of a tree removal permit under this section the applicant may be required to:

(1)

Relocate those trees which would otherwise be destroyed to another location upon the site; or

(2)

Replace those trees which will be destroyed with suitable replacement trees elsewhere within the site. In determining the required relocation, replacement or root pruning of trees, the tree preservation agency shall consider the needs of the intended use of the property, including all lands dedicated to public use, together with an evaluation of the following:

a.

Existing tree coverage on the site and in the immediate surrounding area.

b.

Number of trees to be removed on the entire site.

c.

The type, size and condition of the tree to be removed.

d.

The feasibility of relocating the particular tree or trees.

e.

Topography and drainage of the site.

f.

The extent to which the tree contribute to the aesthetic, economic and environmental integrity of the surrounding area.

g.

The nature of the existing and intended use of the property.

(f)

*Permit issuance; permit card.* Upon approval of an application made under this article and the payment of the required fee, as required under section 82-29(b), the tree preservation agency shall issue a permit therefor. With each such permit, the tree preservation agency shall issue a weatherproof permit card bearing all pertinent information thereon. Such card shall be maintained in a conspicuous place on the front of the premises affected thereby during the entire time that the work authorized by the tree permit is in progress.

(g)

*Time limitation.* Permits issued under this section shall be subject to the following time limitations:

(1)

Permits shall expire and become null and void if work authorized by such permit is not commenced within 90 days from the date of the permit, or if such work when commenced is suspended or abandoned at any time for a period of 90 days.

(2)

If work has commenced and the permit becomes null and void or expires because of lack of progress or abandonment, a new permit covering the proposed tree removal activity shall be obtained before proceeding with the work.

(3)

This provision shall not be applicable in case of civil commotion, or when such work is halted due to legal action.

(4)

The fee for renewal of a permit after work has commenced and the fee for reissuance of a permit before work has commenced and after the original permit has become void shall be as established by the city commission.

(5)

Permits issued after work has commenced shall be two times the normal fee.

## **2015- Lady Lake-Tree Protection**

### **Section 10-5. - Tree removal *Removal of Historic Tree/Requirements for variance:***

A)

Residential Single Family Lots and Manufactured Home Lots shall be required to pay a fee of five hundred dollars (\$500.00) to remove any historic tree on their property that will result in a total of the historic trees numbering less than the required amount of canopy trees for the lot size. Historic trees shall be given priority as the first to satisfy the minimum canopy tree requirements on all residential lots. If the property owner retains a number of historic trees equivalent to the minimum canopy tree requirements, historic trees in excess of the minimum requirements may be removed through a general tree removal permit at a fee of twenty-five dollars (\$25.00). Removal of Historic Trees on residential lots do not require a variance; however, permits to remove any historic tree that will result in a number less than the minimum canopy requirements shall be accompanied by a letter from a certified arborist or registered landscape architect as to why the removal of the tree is necessary.

B)

Any owner of commercial/non-residential property who desires to remove a historic tree shall file an application for a variance. If the applicant seeks a variance to remove more than one tree, the applicant may include as many trees as the applicant desires in one application. Should the applicant include more than one tree in the variance application, the variance fee is sufficient to cover all trees the applicant



requests be approved for removal in the one application. Applications shall be brought before the Planning and Zoning Board for recommendation and then to the Town Commission for a final decision. An application for a variance shall not be required if the Town Manager or designee determines that based on an ISA (International Society of Arboriculture) certified or FAA (Florida Arborist Association) certified arborist's report that the tree is dead or so diseased that there is no likelihood of recovery.

C)

Should the Town Commission approve the applicant's request for tree removal, the applicant, shall within thirty (30) days after the approval pay to the Town Tree Bank, three thousand six hundred dollars (\$3,600.00) for each thirty-six (36) inch DBH tree plus one hundred dollars (\$100.00) per additional inch over the thirty-six (36) DBH tree. This mitigation fee is to offset the loss of each historic tree.

## **Tree Protection During Construction**

### **2016-Fort Lauderdale *Tree protection.***

1.

*Trees* retained on a site shall be protectively barricaded before and during construction activities as approved by the department. A monetary performance assurance instead of or in addition to a protective barricade may be required to ensure protection of a *tree* or *trees* or to guarantee restoration of an equivalency. The amount of said assurance shall be based upon the equivalent value of the *tree* or *trees* specifically covered. Any assurance required for a "protected *tree*" shall be four (4) times the equivalent value for that *tree*.

2.

Underground utility lines shall be routed around existing *trees* to the outside of the dripline. If this is not possible, as determined by the department, a tunnel made by a power-driven soil auger may be used under the *tree*.

3.

Installation of fences and walls shall take into consideration the root systems of existing *trees*. Post holes and trenches located close to *trees* shall be dug by hand and adjusted as necessary to avoid damage to major roots. Continuous footers for masonry walls shall be ended at locations where larger roots are encountered and the roots bridged.

4.

Any *tree* which has been declared by resolution of the city commission to be a "protected *tree*" shall not be removed unless such removal has been approved by resolution of the city commission. When a protected *tree* is on or adjacent to a site to be developed or redeveloped, the owner, developer or contractor shall take all reasonable measures to prevent damage to the *tree* and root system out to the natural dripline. The extent of the dripline will be based on diameter and species without respect to previous pruning activities.

5.

Any owner, tenant, contractor or agent thereof who fails to provide *tree* protection as stated herein shall be guilty of *tree* abuse.

## **2016 Miami Beach-Tree Preservation**

### **Sec. 46-62. - Tree preservation and protection requirements, root cutting**

(1)

*Tree protection requirements during construction.*

(a)

*General.* All reasonable steps shall be taken to prevent the destruction or damaging of trees for which no tree work permit has been issued during site development and construction on private or public property. Any owner, tenant, contractor or agent thereof who fails to provide tree protection, as set forth herein, shall be subject to enforcement as provided in section 46-67. Trees destroyed or incurring major damage must be replaced by trees of equal environmental value, as specified by the public works department, prior to the issuance of the certificate of occupancy or certificate of use, unless removal of the trees has been authorized pursuant to a tree work permit. Tree protection zones must be established for all trees that remain in place on-site and for any trees relocated within or to the site. When proposed development activities may damage the root systems or canopies of trees to be retained or relocated on-site, alternatives to the proposed activities, or effective protective measures, shall be identified and used.

(b)

*Permit/construction drawings.* All permit and construction drawings of the site shall show the tree protection zones, as prescribed by the public works department, as shaded areas that are accurately drawn to scale and labeled as such on the drawings. The tree protection zones shall be shown on all drawings that include any underground utility installations, including, but not limited to, irrigation, plumbing, electrical, telecommunication or streetlight lines. The tree protection zones shall be shown on all drawings that include structural installations that will require excavation(s), and for above-ground installations that may include, but is not limited to, such as walkways, street lights, overhead wires, or other types of infrastructure.

(2)

*Tree protection specifications.* The following tree protection specifications must be adhered to as a condition of approval of the site plan for any project. The urban forester may require supplemental protection measures to ensure the protection of trees. The urban forester shall have the authority to enter the subject property to ensure compliance with required tree protection measures.

(a)

*Protective barriers.*

(i)

*Placement.* Protective barriers shall be placed at the drip line of each tree, cluster of trees, or preservation area, and in no case less than ten feet from the trunk of any protected tree, tree cluster or preservation area. In situations where trees have been transplanted to the project site, the protective fencing shall be placed no closer to the tree than a point one to two feet outside the root ball, or at the drip line, whichever is greater. The fenced tree protection zones shall be extended where necessary to protect tree canopies roots. If trees are to be preserved in place and root pruning is required to accommodate new construction, the root pruning locations shall be identified and approved by the public works department, and fencing shall be installed one to two feet beyond the edge of the root ball. The installation of the fencing shall be coordinated with any phased root pruning that must occur. Tree maintenance measures must be in place prior to any root pruning or transplanting.

(ii)

Timing and duration. All protective barriers shall be installed prior to the start of any construction or site development, including tree removal, demolition, or land-clearing activities, and shall remain in place throughout all phases of construction. Protective barriers shall be maintained in place until development is completed, and shall not be removed until the public works department inspects the site and authorizes their removal.

(iii)

Barrier specifications. Sturdy temporary barriers shall be installed around all tree protection zones. Barriers shall be a minimum of four feet high, and shall be constructed of continuous chain link fence with metal posts at eight-foot spacing, or of two-by-four-inch posts with three equally spaced two-by-four-inch rails. Posts may be shifted to avoid roots.

(b)

*Activities within tree protection zones enclosed by protective barriers.*

(i)

Understory plants within areas surrounded by protective barriers shall be protected.

(ii)

No oil, fill, equipment, building materials, building debris, or any other material shall be placed within the areas surrounded by protective barriers.

(iii)

No disposal of any waste material such as paints, oils, solvents, asphalt, concrete, mortar, or any other material shall occur within the areas surrounded by protective barriers.

(iv)

Natural grade shall be maintained on areas surrounded by protective barriers. In the event that the natural grade of the site is changed as a result of site development such that the safety of the tree may be endangered, tree wells or retaining walls are required.

(v)

Only hand digging and grading activities will be permitted within the tree protection zone. All surrounding areas must be graded to a point that meets the outside of the tree protection zone.

(vi)

Underground utility lines, including, but not limited to, irrigation, plumbing, electrical, or telecommunication lines, shall be placed outside the areas enclosed by protective barriers. If such placement is not possible, disturbance and root damage shall be minimized by using techniques such as tunneling, hand digging, excavation with an air spade, or the use of overhead utility lines.

(vii)

No vehicles or equipment shall be permitted within areas surrounded by protective barriers.

(c)

*[Construction of fences, walkways and walls.]* Fences, walkways and walls shall be constructed to avoid disturbance to any tree to remain in place onsite in the vicinity of construction activities. Post holes and trenches located close to trees shall be dug by hand and adjusted as necessary, using techniques to avoid damage to major roots system.

(d)

*[Attachments prohibited.]* No attachments or wires other than those of a protective or non-damaging nature shall be attached to any trees during site development or construction.

(3)

*Root cutting.* The cutting of roots with a diameter of two inches or larger is prohibited, unless there is no feasible alternative, as determined by the public works director or his/her designee. The city may require that construction activities, such as trench lines and walkway construction, be redirected away from tree root zones. Root cutting shall be done according to approved techniques as outlined herein:

(a)

Trees shall be evaluated by the urban forester to determine whether the root cutting will destabilize the tree or cause unacceptable damage to the tree.

(b)

Root cuts shall be made, at minimum, a distance from the trunk equivalent to three times the tree's trunk diameter at four and one-half feet above ground unless unavoidable because of sidewalks, pavement, or other infrastructure. Root cuts must be made at a distance from the trunk equivalent to five times the tree's DBH or greater in all other circumstances.

(c)

Roots may not be torn off with power equipment, and cut roots shall not be left with ripped, ragged or shredded ends. Roots must be cleanly severed with sharp hand tools or power root saws.

(d)

When tunneling or otherwise avoiding roots is not possible, the trench shall be carefully excavated by hand or machine and, when a root with a diameter of two inches or greater is encountered, a final clean cut shall be made with a saw. The cut shall be made flush with the side of the trench closest to the tree. The root pruning trench shall be backfilled with soil.

(e)

When adjacent to new curbing, uncurbed paved areas, or areas of grade changes, roots shall be cut no more than 18 inches towards the tree from the back of the curb, the edge of the pavement, or the point of intersection of old and new grades. After root pruning, no excavation for the installation of forms or for any other reason may be performed any closer than six inches outside of the root pruning cut. The root pruning trench shall be backfilled with soil.

## **2014-South Miami-Tree Protection**

### **Sec. 20-4.5.1 - Tree protection *Tree Preservation During Development and Construction.***

(1)

*Tree Protection During Construction.* A photographic record of the trees within the proposed barrier area shall be made by the City Arborist before any permit, including a demolition permit, is issued. Trees shall be protected during construction through the use of protective barriers in accordance with the Miami Dade County Landscape Manual or other nationally recognized arboricultural standards approved by the city manager or designee shall be used as guidelines for tree protection, planting, pruning and care during development and construction.

(2)

Trees that are to remain on site or to be relocated, shall be clearly identified with a tag, including an identification reference to the tree survey required as part of the landscape plan or tree permit. A protected area within the drip line of the tree or within a radius of 10 feet measured from the tree trunk, whichever is greater, shall be maintained around trees to remain in accordance with the Landscape Manual, unless the city's certified arborist City Manager otherwise determines in writing that a smaller or larger protected area is acceptable for each tree, or an alternative tree protection method is approved.

(3)

During demolition and/or development, including installation of irrigation systems or any other underground installations, protective barriers shall be placed around each tree and shall remain in order to prevent the destruction or damaging of roots, stems or crowns of such trees, and to prevent the deposition of any fill or compaction to the drip zone of the tree. The barriers shall remain in place and intact until such time as approved landscape operations begin; however, barriers may be removed, subsequent to written permission from the City after an onsite inspection, temporarily to accommodate

construction needs, provided that the manner and purpose for such temporary removal will not harm the trees. The trees shall be properly irrigated throughout the building process. Persons who cause tree damaged during construction shall be subject to the penalties set forth in the provisions of Section 20-4.5.1(L). Understory plants within protective barriers shall be protected.

(4)

*Barriers required.* Prior to clearing, demolition, or other construction activities, the city manager or designee shall determine which trees, if any, require protection. Protective barriers shall be constructed, as necessary, to prevent the destruction or damaging of regulated trees that are located within 50 feet of any construction activity or storage of equipment and materials. Barrier placements along subdivision streets are regulated in accordance with the provisions of this section. Trees identified for preservation which are destroyed or severely damaged shall be mitigated in accordance with this section prior to issuance of a certificate of occupancy or use. To avoid conflicts between barrier placements and demolition and construction activities, barriers shall be drawn to scale on the demolition, grading and paving sheets of the development plan.

(5)

*Barrier zones.* All regulated trees in areas of demolition or construction that have not been permitted nor designated for removal by either the terms of the permit or approved development order shall be protected by barrier zones erected and inspected prior to construction of any structures, road, utility service or other improvements. Barricades shall comply with the following:

(a)

Protective barriers shall be plainly visible and shall create a continuous boundary around trees or vegetation clusters in order to prevent encroachment by machinery, vehicles or stored materials. To further protect tree roots, a layer of wood chips at least eight inches thick shall cover the soil within the barricade. Barricades must be at least three feet tall and must be constructed of either wooden corner posts at least two by four inches buried at least one foot deep, with at least two courses of wooden side slats at least one by four inches with colored flagging or colored mesh attached, or constructed of one-inch angle iron corner posts with brightly colored mesh construction fencing attached. Heritage trees shall be protected by galvanized chain link fencing a minimum of 48 inches high, 11-gauge wire, two-inch mesh size secured with 17/8 inch line posts no further than 10 feet apart secured at a depth of three feet below soil line. Corners shall be secured with 23/8 inch line posts secured to a depth of four feet below soil line.

(b)

Barriers shall be placed at the greater of the following:

(i)

At or outside the dripline for all heritage and champion trees and all regulated pine and palm trees;

(ii)

At a minimum of two-thirds of the area of the dripline for all other regulated species; or

(iii)

At the tree root plate.

(c)

If complying with the above placement of barriers is found to unduly restrict development of the property, the city manager or designee, or the appropriate reviewing board may approve alternative barrier placements or methods of protection provided that at least fifty (50) percent of the area under the canopy dripline remains undisturbed (no grade change or root cut) and further provided that there shall be no disturbance to the tree root plate. Protective barriers may not be removed or relocated without such approval.

(d)

No grade changes shall be made within the protective barrier zones without prior approval of the city manager or designee. Where roots greater than one inch in diameter are damaged or exposed, they shall be cut cleanly and re-covered with soil within one hour of damage or exposure.

(e)

Protective barriers shall remain in place and intact until such time as landscape operations begin. If construction needs dictate a temporary removal (for less than twenty-four (24) hours), the city manager or designee, may approve or deny the temporary removal of protective barriers.

(f)

Landscape preparation in the protected area shall be limited to shallow disking of the area. Disking shall be limited to a depth of four inches unless specifically approved otherwise by the city manager or designee.

(6)

No gas, oil, fill, equipment, building materials or building debris shall be placed within the areas surrounded by protective barriers, nor shall there be disposal of any waste materials such as paints, oils, solvents, asphalt, concrete, mortar or any other materials harmful to trees or understory plants within the areas surrounded by protective barriers.

(7)

Trees shall be braced in such a fashion as to not scar, penetrate, perforate or otherwise inflict damage to the tree.

(8)

Natural grade shall be maintained within protective barriers. In the event that the natural grade of the site is changed as a result of site development, such that the safety of the tree may be endangered, tree wells or retaining walls may be required.

(9)

Underground utility lines shall be placed outside the areas surrounded by protective barriers. If said placement is not possible, disturbance shall be minimized by using techniques such as tunneling.

(10)

Fences and walls shall be constructed to avoid disturbance to any protected tree. Post holes and trenches located close to trees shall be dug by hand and adjusted as necessary, using techniques such as discontinuous footings, to avoid damage to major roots.

(11)

If any preserved tree is not alive and healthy three (3) years after the certificate of occupancy is granted, it shall be removed and replaced with the tree or trees that originally would have been required by this code. The area that was preserved to accommodate the preserved tree shall be maintained in an unpaved condition and the replacement trees established in this area.

(12)

The Planning Department shall maintain, and make available to the public, descriptions and illustrations of tree preservation and protection practices which will assist in assuring that preserved trees survive construction and land development.

(13)

*Inspections.* The city manager or designee shall conduct periodic inspections of the site before work begins and/or during clearing, construction and/or post-construction phases of development in order to ensure compliance with these regulations and the intent of this section.

(14)

*Denial; conditions.* The city manager or designee may deny a proposal for development because one or more champion or heritage trees have not been preserved or adequately protected, or may require special conditions of approval that may include but are not limited to the following:

(a)

Requiring the trees to be protected with chain-link barricades.

(b)

Requiring a soil aeration system in the vicinity of tree roots as needed, particularly where fill will be added over roots of preserved trees or where compaction may reduce the availability of water and oxygen to tree roots.

(15)

*Native trees.* At least Fifty (50) percent of trees on the required landscape plan should be native species. Cultivars of native trees are considered native species.

(16)

*Pruning.* All trees may be pruned to maintain shape and promote their shade-giving qualities and to remove diseased or dying portions in areas where falling limbs could be a hazard to people or property. Tree pruning shall be done in accordance with the most current version of the American National Standard for Tree Care Operations "Tree, Shrub and Other Woody Plant Maintenance" (ANSI A300) and "Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush-Safety Requirements" (ANSI Z133). The pruning or trimming of any tree shall be in accordance with guidelines in the Landscape Manual. No more than twenty-five (25) percent of a tree's living canopy shall be removed within a one-year period. No more than twenty-five (25) percent of the crown should be removed at one time. On young trees, limb removal shall leave no more than thirty-three (33) percent of the trunk bare of branches. So that shade trees can grow with sturdy structure, the top branch or leader shall not be removed. Hooks or climbing spikes shall not be used to climb trees unless the tree is being taken down. Mature trees overgrowing vehicular use areas shall be pruned to allow the passage of emergency vehicles. Excessive pruning, pollarding, or pruning of trees into round balls of crown or branches, which results in an unnecessary reduction of shade and promotes weak branch attachments is prohibited.

(17)

The practice known as "Hat-racking" is not permitted and shall be considered a violation of Section 20-4.5 and Section 20-4.5.1.

(18)

*City Manager.* The city manager is hereby authorized to enter into agreements with the owners of private property located within the city for the purpose of acquiring easements to plant trees on such property and in consideration for such agreement the private property owner shall acquire ownership of such trees as the city may plant; provided, however, that any such agreement shall limit the duration of the easement to a time period of two years and shall limit the property interest acquired by the city to that distance sufficient to allow the planting and initial maintenance of trees, but in no case to exceed a maximum of a 22-foot setback from the property line or right-of-way held by the city. Provided further, that under such agreement the private property owner shall agree to subsequently maintain the trees planted thereon and shall also agree to hold the city harmless for any liability attributable to the planting or presence of the trees on the private property.

(19)

Any other tree abuse, or activity that can effectively destroy a tree, shall also be considered a violation of this section.

## **Tree Abuse**

### **2016-Fort Lauderdale Tree Abuse**

1.

Tree abuse is prohibited. Abused trees may not be counted toward fulfilling landscape requirements. Tree abuse shall include:

a.

Damage inflicted upon any part of a tree, including the root system, by machinery, storage of materials, soil compaction, excavation, vehicle accidents, chemical application or change to the natural grade.

b.

Damage inflicted to or cutting upon a tree which permits infection or pest infestation.

c.

Cutting upon any tree which permanently reduces the function of the tree or causes it to go into shock;

d.

Cutting upon a tree which alters the natural shape.

e.

Hatracking.

f.

Bark removal of more than one-third (1/3) of the tree diameter.

g.

Tears and splitting of limb ends or peeling and stripping of bark.

h.

Use of climbing spikes on any species of tree for any purpose other than total tree removal.

i.

Severe neglect of tree nutrition or adequate irrigation necessary for continued growth.

j.

Pruning of live palm fronds, which initiate above the horizontal plane.

2.

Trees shall be cut in the following manner:

a.

All cuts shall be clean and at junctions, laterals or crotches. Tunneling or drop crotch trimming for overhead utility lines shall be followed.

b.

Removal of dead wood, crossing branches, weak or insignificant branches, and suckers shall be accomplished simultaneously with any reduction in crown.

3.

An owner of a parcel of land upon which tree abuse has occurred may be required to replant an equivalent replacement upon such parcel, or at a different location selected by the department, within sixty (60) days after being notified by the department.



## **2000-Virgina Gardens-Tree Abuse**

### **Sec. 14-111. - *Tree abuse prohibited; responsibility.***

(a)

*Generally. Tree abuse is prohibited. Abused trees may be required to be replaced. Tree abuse includes:*

(1)

Damage inflicted upon any part of a *tree* including the root system by machinery, mechanical attachments, storage of material, soil compaction, evacuation, vehicle accidents, chemical application or change to the natural grade.

(2)

Damage inflicted to or cutting upon a *tree* which permits infection or pest infestation.

(3)

Cutting upon any *tree* which destroys the natural shape.

(4)

Hatracking.

(5)

Bark removal of more than one-third (1/3) of the *tree* diameter measured four and one-half (4½) feet above ground.

(6)

Intentional tearing and splitting of limbs, ends or peeling or stripping of bark.

(7)

Use of climbing spikes.

(b)

*Responsibility for tree abuse or any other violation of this article shall be upon:*

(1)

The property owner on whose property the *tree* that was subject to *tree abuse* is located; and

(2)

The actual person committing the *tree abuse*; and

(3)

If the person committing the *tree abuse* was in his/her course of employment for a business entity, then such business entity shall likewise be responsible.

## **2016 City of Sunrise Tree Abuse**

### **Section 16-173 *Tree Abuse***

The following example includes selections from a portion of an ordinance that restricts topping ("hatracking") and several other destructive practices under the general term "tree abuse". The code includes specific definitions of what practices are and aren't prohibited, a mechanism for waivers and appropriate penalties, which include remedial maintenance or, if necessary, replacement (see also provision 11).

(a)

Declaration of intent. The city commission (city) finds and declares that regulation of the cutting, trimming, and pruning of trees within the city will help ensure that the health, function and value of

trees are protected, and will help to prevent dangerous branching conditions that may result in danger or injury to citizens or property...

(a.3)

Tree abuse means:

a. To hatrack a tree; or ...

c. Cutting upon a tree which destroys its natural habit of growth [as defined herein]; or

d. Pruning that leaves stubs or results in a flush cut; or splitting of limb ends; or ...

f. The use of climbing spikes, nails, or hooks, except for the purpose of total tree removal or as specifically permitted by the American National Standards Institute; or ...

(5) Violator means a person who abuses a tree or otherwise violates this section. The owner of property upon which the abused tree is located shall also be deemed a violator if the tree abuse is undertaken by the owner's employee, agent or person under the owner's control...

(b.1)

No person shall abuse a tree unless one (1) of the following exemptions applies:

a The abuse is necessary to alleviate a dangerous condition posing an imminent threat to the public or property,

b.

Franchised utilities may obtain a permit form the city, renewable on an annual basis, authorizing the pruning of trees in a manner that may be defined herein as tree abuse provided such pruning is necessary to prevent service interruptions.

(b2) Any person may apply to the planning and development department for an administrative waiver from the terms of this section, provided that:

a.

The application is made before any actions for which a waiver is sought have been undertaken;

b.

Any alleged hardship is not self created by any person having any interest in the property. A hardship shall not be considered self created if the subject tree was installed prior to the effective date of this section;

c.

There are unique and special circumstances or conditions applying to the subject tree or the property upon which it is located, that do not apply generally to other trees or properties.

d.

The waiver proposed is the minimum variance necessary to alleviate the hardship.

e.

That the granting of the waiver will be in harmony with the general intent and purposes of this section and will not create a dangerous condition that threatens the public or property.

## ***2014 Street Trees-South Miami***

### ***20-4.5.1 Street Trees.***

(1)

*Street trees.* Street trees shall be planted along the sides of all streets within a development and on the development side of any contiguous street. Street trees shall be planted for every thirty (30) to fifty (50) feet of street frontage, depending on the canopy area needed for the tree species. The widths of driveways along a street shall be subtracted from the linear feet of street frontage length for the purposes of calculating the number of required street trees. In no case shall trees of species with spreading crowns (e.g., live oaks) be spaced closer together than twenty-five (25) feet or shall trees of any species be spaced farther apart than sixty (60) feet. Alleys are exempt from this requirement for

street trees. Street tree diversity is to be attained city-wide to reduce the effect of loss of street tree species due to insect or disease outbreaks, even though street tree diversity may not be attained on an individual street.

(2)

Street trees shall be high quality shade trees and shall be planted in tree lawns with a minimum width of eight (8) feet, or within tree wells with minimum four-foot by four-foot surface openings.

(3)

On-street parking spaces may be located between street trees, as long as the required number of trees are planted along the street frontage, and the minimum rootzone volume is provided for each tree.

(4)

Tree wells may be enclosed with pavers or other hardscape materials above the required rootzone volume. The landscape architect shall present a recommendation regarding the need for the installation of an aeration system necessary to conduit water and oxygen to the roots of trees within tree wells.

(5)

Where possible, street trees shall be planted between the street and the public sidewalk. Street trees may be planted between the sidewalk and adjacent buildings only where the location of existing or proposed utility lines along the street, or the clear zone requirements of the public works department or other maintaining agency, prevent the location of trees between the street and sidewalk. Where street trees are approved to be planted between the sidewalk and adjacent buildings, the trees may be located as close as five (5) feet away from building face.

(6)

The reviewing board, or the city manager or designee, may require the adjustment of the prescribed build-to line in order to accommodate the required street trees and ensure that the trees will meet separation requirements from utility lines, buildings, and paved areas.

(7)

Where possible, developments shall be designed to preserve as street trees any existing champion, specimen, or heritage trees which are located in the right-of-way or on private property within twenty (20) feet of the right-of-way. Where these trees are preserved, no new construction or grading shall occur within the tree root plate, and new buildings shall be designed so that no more than twenty-five (25) percent of the crown of the trees is removed. The area underneath the canopy of the preserved trees shall be exempt from tree planting requirements, and the required distances between street trees may be modified.

(8)

A minimum ten-foot separation shall be provided between street trees and street stormwater inlets, except where bioretention inlets that incorporate trees are utilized.

(9)

Where the required street trees would overlap with trees that are required to satisfy perimeter landscaping requirements for vehicular use areas, only the requirements for the vehicular use area must be met.

(10)

Size and spacing. Street trees shall be of a species typically grown in Miami-Dade County that normally mature to a height of at least twenty (20) feet. Street trees shall have a clear trunk of four (4) feet, an overall height of twelve (12) feet and a minimum caliper of two (2) inches at time of planting, and shall be provided along all roadways at a maximum average spacing of thirty (30) feet on center, except as otherwise provided in this Chapter. Street trees are not required when a colonnade open to the public is located within four (4) feet of the edge of the roadway. Street trees may be placed within the swale area or shall be placed on private property where demonstrated to be necessary due to right-of-way

obstructions as determined by the Public Works Department or the appropriate authority within the municipality. The City may require root barriers as per City rules.

(11)

The maximum average spacing of thirty (30) feet for multiple single-family units shall be based on the total lineal footage of roadway for entire projects and not based on individual lot widths.

(12)

Power lines. Where the height and location of overhead power lines require the planting of low growing trees, street trees shall have a minimum height of eight (8) feet, a minimum caliper of one and one-half (1.5) inches at time of planting, and shall meet the following requirements:

(a)

Single trunk trees clear of lateral branches to four (4) feet and/or multi-trunk trees or tree/shrubs, as referenced in the Landscape Manual, cleared of foliage to a height of four (4) feet.

(b)

A maximum average spacing of twenty-five (25) feet on center.

(c)

Maturing to a height and spread not encroaching within five (5) feet of overhead power distribution lines.

(d)

Under high voltage (50kV and above) transmission lines installed independent of underbuilt distribution lines, tree height and spread shall not exceed the minimum approach distances specified in the current ANSI (American National Standards Institute) Z133.1 Standards, as referenced in the Landscape Manual.

(13)

*Palms.* Palms which meet all of the following requirements shall count as a required street tree on the basis of one (1) palm per tree.

(a)

Minimum canopy of fifteen (15) feet spread at maturity.

(b)

Provided at an average maximum spacing of twenty-five feet (25) feet on center.

(c)

Fourteen (14) foot minimum overall height or minimum caliper of four (4) inches at time of planting.

(d)

It is provided however that queen palms (*Syagrus romanzoffiana*) shall not be allowed as street trees. No more than thirty (30) percent of the minimum tree requirements may be met by palms.

(14)

Fifty (50) percent of the required trees and/or palms shall be native species.

(15)

In order to prevent adverse environmental impacts to existing native plant communities, only existing Cabbage Palms (*Sabal palmetto*) may be used to satisfy minimum tree and native plant requirements, except that Cabbage Palms which are rescued from government approved donor sites, transplanted within the site, or commercially grown from seed shall be counted towards the minimum tree and native plant requirements.

(16)

When trees are requested by a property owner to be planted within the right-of-way, the requesting property owners shall execute a covenant provided by the City to provide for the maintenance of such trees subsequent to planting. Where the State, County, or municipality determines that the planting of trees and other landscape material is not appropriate in the public right-of-way, they may require that said trees and landscape material be placed on private property.

(17)

Where trees are planted on private property, they shall be placed within seven (7) feet of the edge of the dedicated right-of-way or within seven (7) feet of the edge of the roadway and/or inside edge of a sidewalk on private roads and shall be maintained by the private property owner such that the trees do not interfere with the activities of the right-of-way.

(18)

Consideration shall be given to the selection of trees, plants and planting site to avoid serious problems such as clogged sewers, cracked sidewalks, and power service interruptions.

(19)

Street trees are not required along a colonnade which is open to the public and which is located within four (4) feet of the edge of the roadway.

(20)

Street trees in the Hometown District Overlay shall be located per the street tree requirements set forth under Section 20-7.

(21)

*Planting in Relation to Utility Lines.* The ultimate, mature height and width of a tree to be planted shall not exceed the available overhead growing space as limited by the tree touching the overhead obstacle. A list of small trees and palms which may be permitted to be planted adjacent to utility lines is available in the University of Florida IFAS "Trees and Powerlines" document.

(22)

*Emergency Provisions.* In the event that the City Manager determines that any tree in the City may constitute a hazardous condition so as to endanger the public health, safety and general welfare unless it is immediately removed or pruned, the City Manager, or his designee, may verbally authorize the removal of such tree following an onsite inspection of the subject tree without the securing of a removal permit as required by this section. The provisions and requirements of this chapter may be temporarily stayed by a majority vote of the City Commission following the occurrence of a hurricane, tornado, flood, or other natural disaster.

## **2000-Tamarac-Tree Protection**

### ***Sec. 11-7. - Street tree requirements***

#### Street tree requirements

(1)

*New development:* In conjunction with new construction, street trees shall be placed in the landscaped area of public or private streets prior to the issuance of a certificate of occupancy. One (1) street tree shall be required for every forty (40) linear feet of street frontage and shall be planted no further than sixty (60) feet and no closer than fifteen (15) feet apart. Street trees are required as an addition to other tree requirements in this chapter. All street trees are to be placed in a location in accordance with the requirements of this chapter in order to accommodate location of utilities and/or street widening. Street trees shall be approved shade trees species, unless an alternative tree species is approved by the community development director of their designee.

(2)

*Existing development:*

a.

Non-residential and multifamily property owners may apply for a permit to plant a tree in the swale area of a public or private street abutting the property owned by the applicant. The location and species of the tree or trees shall be approved by the director of community development. The property owner shall maintain the tree or trees. The city reserves the right to disallow trees in the swale that conflict with a public drainage purpose.

b.

Residents may petition the city commission for special tree planting approval within the rights-of-way of local streets. The director of community development along with the development review committee approval is also required. Costs of trees and installation may be assessed and paid for the respective groups or property owners.

c.

The community development director may recommend from time to time the designation of certain trees located within the city as specimen or historic trees. The city manager shall review such recommendation and add thereto his own comments and recommendations, and the matter shall be presented to the city commission for its determination.

The city commission shall consider the report of the community development department and the recommendation of the city manager and shall either accept, modify or deny the recommendation and may designate by resolution those trees it deems appropriate as specimen or historic trees.

## **Enforcement**

### **2014-South Miami-Tree Protection**

**Sec. 20-4.5.1 - Tree protection** *Authority to Supervise, Enforce, Modify, and Supplement Regulations.*

(1)

*Planning Department.* It shall be the duty of the Planning Department to coordinate with the City's Arborist and public works personnel to ensure compliance with the regulations contained herein and to cooperate with, and assist the code enforcement personnel in the prosecution of any violation of this section.

(2)

*Code Enforcement Division.* It shall be the duty of the Code Enforcement Division ("Code Enforcement") to prosecute violations of the regulations contained herein. The Code Enforcement Division may prosecute violations in conjunction and cooperation with the Planning Department or on its own initiative.

(3)

*Police Department.* In instances in which a person is found cutting or otherwise causing the destruction of a tree without a permit, in addition to the Code Enforcement agency, the South Miami Police Department shall require such person or persons to cease such operations until the necessary permit is obtained.

(4)

*Special Master.* The Special Master hearing any appeal or protest of a penalty issued pursuant to this section shall determine if a violation of this tree protection ordinance has been committed and shall not have discretion to lessen the fine set by this ordinance.

Enforcement.

(1)

Jurisdiction. The City shall have jurisdiction for the proper and effective enforcement of this section. The City shall have the right to inspect subject properties in accordance with the approved tree permit and the provisions of this section.

(2)

Individual Enforcement. Each tree removed without a tree permit shall constitute a separate and distinct violation and shall be the subject of individual enforcement.

(3)

Tree Viability After Project Completion. If the City determines that any tree, that is required to be planted pursuant to a tree permit, is not viable, alive, and growing, one year after all associated development activity on the property is completed, the City shall require that said tree be replaced with the same tree species and size which was originally planted or relocated, as per the approved tree permit or may assess penalties as prescribed in this section for illegal tree removal. Such penalties shall be deposited in the Tree Trust Fund.

(4)

Any person who violates this tree protection ordinance shall be required to pay a fine and shall be, in addition to paying a fine, required to mitigate in accordance with the tree mitigation requirements of this ordinance.

(5)

Withholding of a New Building Permit. The removal of any tree in violation of this section shall constitute grounds for withholding new building permits for the subject property until the violation has been corrected, including the payment of all fines and the planting of all trees required as mitigation, pursuant to this section has occurred to the satisfaction of the City. Alternatively, in order to obtain the new building permit, the person in violation may post a performance bond pursuant to 255.05 of the Florida Statutes naming the City of South Miami as Obligee. The bond shall be in the amount of ten percent of the construction cost or ten percent of the appraised value of the property, whichever is greater. The bond will be maintained in place until the violation has been corrected, pursuant to this section.

(6)

Withholding of a Certificate of Occupancy. The Planning Department shall not approve the zoning inspection required for a temporary or final Certificate of Occupancy until all violation of this section have been corrected, including the payment of all fines and the planting of all trees required as mitigation, pursuant to this section.

(7)

Occupational License. The occupational license of any person who performs any services in the City and who violates this ordinance shall be suspended, or if yet to be issued, shall not be issued, until the violator has complied with this ordinance, paid all fines incurred and complied with all requirements for tree mitigation.

(8)

Remedies Cumulative. The remedies provided in this section shall be cumulative to all remedies provided by law and/or equity, and the election of one shall not preclude the other.

(9)

Costs and Fees. In the event the City institutes any civil action to enforce the terms of this section in a court of competent jurisdiction, the City shall be entitled to recover the fines imposed pursuant to the violation(s), the cost of trees required as mitigation, the costs associated with the investigation and prosecution, inclusive of a reasonable attorney's fee for prosecuting attorney, together with any equitable and legal remedies deemed reasonable and proper by the court.

L.

Penalties, Remedies Cumulative.

(1)

Fine. Any person, and each agent thereof, including the owner, who, without an appropriate permit required by this ordinance, relocates, trims or removes a tree, and/or orders, instructs or allows others to relocate, trim or remove a tree in violation of this ordinance shall (i) comply with the tree mitigation requirements of this ordinance in the form of replacement trees or, if replacement is not possible, shall pay the amount required in lieu of replacement and (ii) shall pay a fine of two hundred fifty dollars (\$250.00), per violation. Where there are two (2) or more penalties for the same offence, all the penalties shall apply, unless found to be excessive by a court of competent jurisdiction and then the more stringent enforceable penalty or penalties shall apply. All fines and monetary mitigation payments shall be deposited into the Tree Trust Fund. Each tree removed, relocated or trimmed without an appropriate permit, shall constitute a separate and distinct violation, subject to a separate fine and mitigation. If the violator fails to timely complete the requirements of this ordinance for tree mitigation ("Tree Mitigation Violation"), the violator shall pay an additional fine of two hundred fifty dollars (\$250.00) for each day thereafter until the mitigation is completed. The fine for any repeated violation of this ordinance by the same person shall increase to five hundred dollars (\$500.00) for each repeated violation. The fine for a repeated Tree Mitigation Violation by the same person shall be five hundred dollars (\$500.00) per day. The owner of the property where the violation occurred shall be jointly and severally liable for the same fine as the person who removed, relocated or trimmed a tree without an appropriate permit. All of the fines provided for in this ordinance may be increased or decreased by and as set forth in the City's Schedule of Fees and Fines.

(2)

Tree Mitigation Required. In addition to the monetary fine established above, the planting of replacement trees shall be required. If the total number of trees required as mitigation cannot be reasonably planted on the subject property by the sole determination of the City Manager who shall be guided by the principal of tree protection and tree preservation, the applicant shall contribute into the City's Tree Trust Fund in an amount based upon the chart below or as otherwise provided more stringently in this section. Mitigation that is required by this ordinance shall be completed within sixty (60) days after the violator has received a citation and shall be in addition to any and all other applicable requirements or sanctions.

(3)

Irreparable or Irreversible Violations. In the event the Special Master finds that the unauthorized removal, relocation, or trimming of any tree is irreparable or irreversible in nature, he shall impose a fine not less than two thousand dollars (\$2,000.00) and not to exceed five thousand dollars (\$5,000.00) per violation, plus mitigation as required in this chapter. In determining the amount of the fine in excess of two thousand dollars (\$2,000.00), the Special Master shall consider, the following factors:

(a)

The gravity of the violation;

(b)

Any actions taken by the violator to correct the violations; and

(c)

Any previous violations committed by the violator.

M.

Tree Mitigation Value. This tree value mitigation chart shows the following values which are intended to be minimum levels of replacement for each size of tree removed. This chart and/or the values in the chart may be amended by the City's Fee Schedule from time to time.



Diameter of Tree removed	Number 2" DBH		Diameter 4" DHB		In lieu of Replacement
2" — 3"	2	or	1	or	\$1,000
4" — 6"	4	or	2	or	\$2,000
7" — 12"	8	or	4	or	\$4,000
13" — 18"	12	or	6	or	\$6,000
19" — 24"	16	or	8	or	\$8,000
25" — 30"	20	or	10	or	\$10,000
31" — 36"	24	or	12	or	\$12,000
37" — 42"	28	or	14	or	\$14,000
43" — 48"	32	or	16	or	\$16,000
49" or greater	40	or	20	or	\$20,000

*\*Notes on its use and implications: Even this method is dated. Tree mitigation values are currently under research by USDA Forest Service. Dave Nowak Ph.D. is developing algorithms based on species structure and lifespan which when completed will be in an excel format for ease of use. This new system will become the new standard and norm. Look for the release in late 2017.*

The above formula approximates the following example:

For every five hundred (500) Square feet of canopy removed, a hardwood tree replacement of at least twelve (12) feet tall would be required. For instance, if two thousand three hundred (2,300) square feet of tree canopy were removed, the replacement requirement would be four (4) 12-foot tall trees and one (1) 8-foot tall tree or at the minimum level of financial contribution, at five hundred dollars (\$500.00) or one dollar and five cents (\$1.05) per square foot of canopy, whichever is greater. This example would require a minimum of two thousand five hundred dollars (\$2,500.00).

N.

Exemptions. The following are prohibited and controlled plant species that are exempt from the general tree protection provisions of this section. A no-charge permit will be issued for removal of prohibited and/or invasive non-native plants species.

(1)

Any tree growing in a botanical garden or a licensed plant or tree nursery business.

(2)

Upon determination in writing by the City Manager that tree permitting requirements will hamper private or public work to restore order to the City after a declared state of emergency by the City Commission.

(3)

The removal of any tree during or following an emergency such as an act of nature or a life safety issue. The city reserves the right to require mitigation once the life safety issue is resolved.

(4)

Removal of any dead tree

(5)

Exemption from mitigation. On properties with canopy cover exceeding 50% of the total lot coverage, canopy covering up to ten (10) percent of the lot may be removed per calendar year without mitigation, provided the total canopy cover does not drop below fifty (50) percent.

(6)

A living tree of the following prohibited or nuisance plant species except when present in a dense distribution or substantial canopy coverage deemed to be of significant importance to the aesthetic or environmental benefit to the area as determined by the City Manager.

## **Tree Trust Fund**

### **2014-Coconut Creek Tree Preservation Trust Fund**

**Tree Protection** *Tree preservation trust fund.*

(1)

**Establishment of trust.** There is hereby created a tree preservation account in the general fund of the city for the purpose of accepting and disbursing the cash payments made in lieu of planting trees for the use and beautification of the city. This fund shall solely be used for the planting of trees in Coconut Creek and any other ancillary costs associated with the planting of trees. Ancillary costs shall not exceed twenty (20) percent of the cost of the particular tree planting project.

(2)

**Term of existence.** The tree preservation trust account (hereinafter the "trust") shall be self-perpetuating from year to year unless specifically terminated by the city commission.

(3)

**Trust assets.** All monies received hereunder from public or private concerns shall be placed in trust for the use and benefit of the city or any designated branch thereof, and its successors and assigns in interest. Such funds shall be expended, utilized and disbursed only for the use designated by the city manager to enable the division to administer the city's tree preservation program.

(4)

**Monetary payment-trust administration.**

a.

Trust funds shall be expended, utilized and disbursed only for the purposes designated by the city.

b.

All monies deposited hereunder shall be deposited in the trust, which shall be a separate account established and maintained apart from the general revenue funds and accounts of Coconut Creek.

c.

Monies obtained hereunder may be accepted on behalf of the city by the director of the department of sustainable development or his or her designee, and upon receipt shall be delivered to the Coconut

Creek Finance and Administrative Services Department, which shall cause the same to be credited to the trust.

d.

Funds collected from a tree removal permit shall be used only within Coconut Creek.

e.

Any monies received subject to a condition shall be expended strictly in accordance with such condition.

f.

The acceptance of payments of the trust shall only be permitted when the site being developed cannot support the number of trees required thereon or when the number of trees being removed from a site exceeds the number of trees being placed on a site. Such excess removal or nonreplacement shall be permitted only with the approval of the director of the department of sustainable development of his or her designee.

g.

In determining the amount of money to be accepted in place of trees, the department of sustainable development shall obtain and average estimates of the cost of desirable trees with a minimum height of twelve (12) feet of No. 1 quality from at least two (2) local nurseries, and estimates of the direct labor costs for the planting and relocation of the trees, which cost estimate shall be updated every six (6) months.

(5)

*Dispersal or conversion of assets; city commission approval.*

a.

Expenditures shall be in accordance with city policy.

b.

Expenditures for tree planting will be made in accordance with city procedures pertaining to contracting and purchasing. The disbursements of these monies shall be under the control of the city manager and, when required, by the city commission. These monies will be used to obtain trees, landscaping, sprinkler systems, and similar equipment for any public land in the city. With city commission approval, these monies may also be utilized to engage supporting elements, such as landscape architects and additional personnel if deemed necessary in the opinion of the city manager. These monies may also be used to cover the expense of relocation of trees in the city. Such monies shall be expended, utilized and disbursed only for the purposes designated by the city manager to enable the city to administer its tree program.

c.

Trust funds will be used to obtain trees, landscaping, sprinkler systems, and any other items or materials necessary and proper for the preservation, maintenance, relocation or restoration of tree ecosystems, for any public land in Coconut Creek. These monies may also be used to cover the expense of relocation of trees in Coconut Creek and the expense of periodically distributing saplings to the public.

## **2014-South Miami-Tree Protection**

### **Sec. 20-4.5.1 - Tree protection *Tree Trust Fund.***

(1)

There is hereby created a Tree Trust Fund, the purpose of which is to acquire, protect, and to plant trees on public property.

(2)

Disbursement from Tree Trust Fund. Monies obtained for the Tree Trust Fund shall be disbursed for the acquisition, maintenance, management, protection, or planting of trees on public property or for the

preservation of trees through the purchase of lands. This fund shall not be used for or toward the installation of new trees that would already be required for a development.

(3)

Source of monies for the Tree Trust Fund. Said Tree Trust Fund shall consist of contributions in lieu of, or in conjunction with, required replacement plantings under this tree protection ordinance. The City shall collect funds designated for the Tree Trust Fund when the replacement planting requirements of this ordinance cannot be met and from other sources.

(4)

Minimum species diversity standards. When more than ten (10) trees are required to be planted, a diversity of species shall be required. The number of species to be planted shall be based on the overall number of trees required. The applicant shall be required to meet the minimum diversity standards as may be set by the City from time to time.

G.

*Tree Mitigation.* All tree mitigation required by this ordinance shall be accomplished in accordance with the requirement set forth in the Miami-Dade County Landscape Manual and or Miami-Dade County Chapter 24-49, as well as in compliance with the provisions of this Section. All replacement trees shall be a minimum of a Florida Grade 1 per the grades and Standards of the State of Florida.

(1)

*Prohibited/Exempt Plant Species.* Mitigation shall not be required for the removal of any prohibited species unless it meets the canopy exception for prohibited plant species.

(2)

*Tree Quality.* Trees installed as mitigation in accordance with this section shall conform to, or exceed, the minimum standards for Florida Number One as provided in the most current edition of "Grades and Standards for Nursery Plants, Part I and II," prepared by the Florida Department of Agriculture and Consumer Services. Trees shall be planted according to sound nursery practices as illustrated in the Landscape Manual and Landscape code Chapter 18A of the MDC code.

(3)

*Off-Site Mitigation.* If the total number of trees required as mitigation cannot be reasonably planted on the subject property, the applicant may enter into agreement with the City, to plant excess number of replacement trees on public property within the City or at the option of the City to make a payment to the Tree Trust Fund in accordance with the schedules herein.

(4)

*Tree Trust Fund.* If the total number of trees required as mitigation cannot be reasonably planted on the subject property, or at the City's direction, as an alternative to the off-site mitigation provided in the Tree removal Section of this ordinance, the applicant shall contribute to the City's Tree Trust Fund the sum of five hundred dollars (\$500.00) per inch DBH required as mitigation in accordance with the Tree removal Section of this ordinance.

## **2007-Winter Haven-Citizen Tree Board**

### **Sec. 15-302. - Urban forestry advisory board.**

(a)

*Established.* There is hereby established an urban forestry advisory board to consist of five (5) citizens, two (2) at large members to be members of local environmental and or commercial organizations, and two (2) ex-officio members to be a representative from the city's community development department and one (1) from the community services department who shall be appointed by the city commission.

(b)

*Terms of office and compensation.* The terms of each of the seven (7) persons to be appointed by the city commission shall be three (3) years, except that the initial terms of three (3) of the members appointed to the first board shall be for only one (1) year and two (2) for two (2) years and two (2) for three (3) years, respectively, for the sole purpose of staggering terms of membership. The community services and community development representatives will serve in an advisory capacity and act as the board's staff. In the event that a vacancy shall occur during the term of any member, his successor shall be appointed by the city commission for the unexpired portion of the term. Members of the board appointed by the city commission shall serve without compensation but may receive reimbursement for expenses as provided by law.

(c)

*Duties and responsibilities.* The urban forestry advisory board will act in an advisory capacity to the city commission and city staff on matters relating to urban forestry. The primary function of the board will be to make recommendations on items presented within an annual urban forestry action plan to be developed by staff with the guidance of the board. The urban forestry action plan will then be presented to the city commission for adoption on an annual basis incorporating recommendations and guidance from the board. The board when requested by the city commission shall consider, investigate, make findings, and report and recommend upon any special matter or question coming within the scope of its work. Board members will also represent the city throughout their term in urban forestry related public involvement efforts.

(d)

*Operation.* The urban forestry advisory board shall hold at least two (2) yearly meetings. Special meetings may be held upon the call of the chair or written request of a member of the board. The board shall keep minutes of its proceedings and all meetings of the board shall be open to the public. If no business is necessary, the chair may choose to cancel the meeting. A majority of the members shall be a quorum for the transaction of business. Once established, the board shall adopt bylaws, which shall establish a chair, vice chair, secretary, and provisions for operation.

## **2008-Ocoee-City Department Tree Board**

### **§ 163-3. - Tree Board.**

A.

Tree Board. The Park and Recreation Advisory Board is hereby designated to also serve as the City's Tree Board. It shall have the responsibility to review and propose related standards for trees and shrubs located in public areas, public ways and in public places.

B.

The Park and Recreation Advisory Board when acting as the Tree Board shall:

(1)

Develop a program for identifying and maintaining trees in the City which have significant historical, cultural, or public significance and make recommendations to the City Commission on adopting such a program.

(2)

Coordinate the City's Arbor Day program and other similar programs.

(3)

Assist in the dissemination of news and information regarding the protection, maintenance, removal, and planting of trees on public places, and to make such recommendation from time to time to the City Commission as to desirable legislation concerning the tree program and activities for the City.

## **2016-Fort Lauderdale Tree Services**

### ***Tree services and arborists.***

1. All *tree* services working within Fort Lauderdale shall have a current Broward *Tree* Trimmer License and comply with all applicable Broward *Tree* Trimmer license regulations.
2. Vehicles used by a *tree* service/arborist operating within the city shall be clearly marked with the name of the *tree* service/arborist. Certified arborists shall display the certified logo and registration number, if any.
3. A photocopy of the current business tax receipt shall be available for inspection at each job site.
4. Standards for cutting on or repair to dicotyledonous species shall be in accordance with the American National Standards Institute A-300 standards or similar accepted standards as published.
5. Persons engaged in business as a *tree* service in the city shall adhere to the American National Standards Institute, A-300 standards or similar accepted standards as published on all *tree* species within the City of Fort Lauderdale.

***\*Supplemental Public Tree Care Ordinance Provisions for Tree City USA®  
Florida Communities—Optional Wording \* Not originating in Florida.***

**MODEL PUBLIC TREE CARE ORDINANCE**

Optional Wording—“Adjacent Owners”

**Adjacent Owner Responsibility.**

- (a) The owner of land adjacent to any city street or highway may, when acting within the provisions of this ordinance, plant, prune or spray trees in the parkway area. Permission of the Director shall only be required when the owner of the abutting property intends to deviate from the rules and regulations contained in this ordinance.
- (b) Other than property owners described above, it shall be unlawful for any person to plant or set out any shade trees or cause or authorize any person to plant or set out any shade trees in or on any city property without first obtaining written permission from the Director.

**Licensing and insurance requirement.**

- (a) It shall be unlawful for any person to engage in the professional business of planting, cutting, trimming, pruning, removing, spraying, or otherwise treating trees on public property without first obtaining the necessary license and permits from the Director.
- (b) Before any license shall be issued, each applicant shall first file evidence of worker compensation and liability insurance in the minimum amounts of \$1,000,000 for bodily injury or death and \$100,000 property damage, indemnifying the City or any person injured or damaged resulting from the pursuit of such endeavor as herein described.
- (c) For trees on private property, it is recommended not to top trees as a normal practice. Firms licensed through the City may be subject to administrative penalties or license revocation as a result of repeated public complaints of topping.

**MODEL PUBLIC TREE CARE ORDINANCE**

Optional Wording—“Authority & Power”

**Position of [City Forester].**

The Director shall designate a qualified person to be [City Forester] who may be an employee of the City or a private contractor. Qualifications include a Baccalaureate or Master’s degree in Forestry, Urban Forestry, Horticulture or related field, related work experience, and certification by the International Society of Arboriculture.

**Duties.**

The duties of the [City Forester] shall be established by the Director, and shall include the following:

- (a) To study the urban forest including problems involving the city tree population, determine needs, compose and annually review a Community Tree Plan and seek ways to implement needed work.
- (b) To assist officials of the town as well as citizens and community groups in the dissemination

of news and information regarding the selection, planting, and maintenance of trees, whether on private or public property.

- (c) To attend meetings of the Tree Advisory Board and serve as liaison.
- (d) To apply for Tree City USA status with the Arbor Day Foundation.
- (e) To assist the Tree Advisory Board with planning and coordinating an annual Arbor Day observance.
- (f) Make rules governing the planting, maintenance and removal of trees on the streets or other public property.
- (g) Organize community tree planting projects.

### **MODEL PUBLIC TREE CARE ORDINANCE**

Optional Wording—"Findings"

**WHEREAS**, the City Council of the City of Tree City, Florida, recognizes that trees play a role in the City's quality of life by:

- (1) removing carbon dioxide from and releasing oxygen into the atmosphere;
- (2) stabilizing soil and preventing erosion and sedimentation;
- (3) reducing stormwater runoff and replenishing groundwater supplies;
- (4) providing a haven for birds and other local wildlife;
- (5) providing shade, cooling the air and tempering the effect of summer heat;
- (6) reducing energy consumption in area homes and businesses;
- (7) protecting and increasing property values;
- (8) providing a buffer and screen against noise pollution;
- (9) reducing glare;
- (10) providing protection against severe weather;
- (11) enhancing the town's physical and aesthetic environment; and

**WHEREAS**, the citizens of Tree City sense an obligation to protect and promote trees as one fulfillment of their civic responsibilities for present as well as future generations; and

**WHEREAS**, the City Council has further determined that it will be beneficial to designate the City [Parks and Recreation] Director with administrative responsibility for the care, planting and maintenance of trees on City Property and City Parks; and

**WHEREAS**, the City Council has also determined that it will be beneficial to establish a Tree Advisory Board to help promote planting of trees in "public places and on private property" and to assist the City in the maintenance of the city's trees both old and new.



## **MODEL PUBLIC TREE CARE ORDINANCE**

### **Optional Wording—"Tree Advisory Board"**

#### **Establishment of a Tree Advisory Board.**

There is hereby created and established a "Tree Advisory Board," hereinafter referred to as the "Board," which shall serve in an advisory capacity to the Parks and Recreation Board and through them, to the City Council.

#### **Membership.**

The Board shall consist of [seven] members approved by City Council, in accordance with the following:

- (a) No member of the Board shall hold elective office in the City.
- (b) Appointed members shall serve without compensation, but may be reimbursed for actual expenses as approved by City Council.
- (c) The Board shall consist of [seven] members, with [three] members from the Parks and Recreation Board, [one] member from the Garden Club, and [one] member from the Keep Texas Beautiful affiliate, each appointed by the chair of their respective board or committee. The remaining [two] members shall be selected from other community organizations or interested volunteers.
- (d) At least [four] of the members of the Board shall reside in the City.
- (e) The Director and/or his/her designee shall be an ex-officio member of the Board, with the responsibility to participate in discussions but without the right to vote.
- (f) Members shall serve at the discretion of City Council and may be removed at the discretion of City Council.

#### **Officers.**

The Board shall annually elect a Chair, Vice-Chair, and Secretary, who shall have these duties:

- (a) Chair: The Chair shall preside over the meetings and shall be entitled to vote upon each issue. In the event a question over procedure, Robert's Rules of Order shall prevail.
- (b) Vice-Chair: The Vice-Chair shall assist the Chair in directing the affairs of the Board. In the absence of the Chair, the Vice-Chair shall assume all duties of the Chair.
- (c) Secretary: The Secretary shall keep the minutes of all meetings and in the Secretary's absence the Chair shall designate another member to act as Secretary. The Secretary may accept the assistance of city personnel in taking and transcribing minutes, when available, but shall sign them officially before presenting it to the Board for approval.

#### **Meetings and procedures.**

- (a) The Board shall adopt operational rules and procedures for the conduct of its business. The rules and procedures shall provide for the annual election of officers, and the conduct of regular and special meetings. The board shall keep minutes of its proceedings. A majority of the member shall be a quorum for the transaction of business.
- (b) The Board shall meet a minimum of four times a year. The chair of the Board may schedule additional meetings as needed. All meetings shall be open to the public, and subject to the Texas Open Meetings Act.

- (c)
- (d) Absence from three (3) consecutive regular meetings without explanation acceptable to a majority of the Board shall be deemed to constitute the retirement of that member and shall be certified by the Chair.
- (e) City Council shall have the right to review the conduct, acts, and decisions of the tree board.

**Duties of the Tree Advisory Board.**

The Board shall act principally in an advisory capacity to the Director, city staff and City Council in matters pertaining to the promotion, improvement and protection of the Urban Forest. Specific duties shall be:

- (a) Coordinate and promote Arbor Day activities;
- (b) Study, investigate, counsel and develop and/or update periodically a written plan for the care, preservation, pruning, planting, replanting, removal or disposal of public trees and shrubs on city property;
- (c) Develop public awareness and education programs relating to trees;
- (d) Review city department concerns relating to tree care;
- (e) Present both oral and written reports annually to City Council concerning activities during the past year and proposals for the coming year.
- (f) Review and recommend specific beautification projects and public awareness programs to the Director, City Manager and/or City Council as may be appropriate.
- (g) Assist the Director with the annual application to renew the Tree City USA designation.
- (h) Solicit for the City gifts, revenues, and bequests or endowments of money or property as donations or grants from persons, firms or corporations, subject to the guidance, approval, and acceptance by City Council.
- (i) Other duties that may be assigned by City Council.

**Duties withheld from the Board.**

- (a) The Board's authority shall not extend to the direction, supervision, employment, or termination of employees of the [Parks and Recreation Department]. No supervisory power of the Board is created.
- (b) The Board shall not have the power to obligate the City for funds or expenditures or incur any debt on behalf of the City.
- (c) All powers and duties prescribed and delegated herein are delegated to the Board, as a unit and all action hereunder shall be of the Board acting as a whole. No action of an individual member is authorized except through the Board or City Council.

## **PART III**

# Strategies and Practices

## Doubts, Setbacks, Compromise and Behavioral Economics

### BACKGROUND

In this report, *integrating human and natural systems* is defined as a coherent system of biological and social factors capable of adaptation and sustainability over time. Human and natural systems can be described at several special scales, and are hierarchically linked. Hence the family unit, community, county, region, nation and even planet can fruitfully be treated as Integrating human and natural systems. The scope of the report focuses on the community level.

Florida's urban areas are forecast to grow by two thirds to over 31 million people in the next 30 years. (*U.S. Forest Service - Regional Plan Association, 2016*).

### IDENTIFY POINTS OF CONSTRAINT

One night a man walking down a street turns a corner and sees another man, down on his hands and knees on the sidewalk, under a streetlight, clearly trying to find something. "Hey buddy,"

The Good Samaritan says. "What are you looking for?"

The second man stumbles a bit and answers, "I'm looking for my keys," he says. "I really need to get home." It's obvious he's had a few drinks.

"OK," the first man says, "I'll help you."

After searching for fifteen minutes, the keys are still nowhere to be found. "Where exactly were you when you lost them?" the helpful stranger asks.

"Over there in that dark alley."

Stunned, the first guy says, "Well then, why are we looking out here on the sidewalk?"

"Because the light is better," says our drunken friend.

If you will forgive the old joke, there is an important lesson to be learned here: Lots of leaders and tree advocates spend their time where there's light, where they're comfortable, while real problems lurk in the dark alleys they don't want to venture into. They get stuck working hard in low-leverage roles. How much time does a single shade tree warrant? To drive municipal council's performance to new levels, tree advocates need to be willing to stretch themselves beyond their comfort zones and challenge themselves to tackle tasks that will truly lead to expected results. Example, as a forester I challenged my comfort zone in addressing in behavioral economics, sociology or psychology of tree protection and conservation.

"Decisions based on emotion are not decisions, at all. They are instincts. Which can be of value. The rational and the irrational complement each other. Individually they're far less powerful." (House of Cards, Episode 12, 2013).

Biases and irrational behavior of human beings' present fundamental challenges to updating out of touch and out of line tree ordinances.

This study of the patterns and processes in ordinances as they relate to urban forestry and ecosystem services emphasize the diversity and complexity of the elements affecting these systems. It is partly this complexity that has caused biologists, urban foresters, engineers, landscape architects and city councils or commissions in general exclude human behavior from discussion and models. Until recently social sciences remain largely at the level of metaphor.

Humans are proud of our ability to make objective, logical and rational decisions (Ariely, 2010). Decision making is one of the most important activities in our professional and personal lives. We make a lot of simple and small decisions almost continuously and unconsciously. Then, we have decisions that are complex, important and vital for people's lives which needs much more deliberation and demands even more energy from our mental faculties.

People intend to make the best decision in favor of themselves, their organization, or the society at large but the biases in judgement and decision making cause costly errors (K. Morewedge, et al., 2015).

### **How people's psychology can affect tree ordinance outcomes: Systematic Irrationality & Cognitive Stereotyping**

This is based on writings of: Dan Ariely, and Michael Lewis "*The Undoing Project*" about two psychologists Kahneman & Tversky and their work in behavioral economics.

Systematic irrationality are the hidden forces that shape our decisions. Yet, irrationality is systematic and predictable.

Michael Lewis discusses ways in which people act irrationally but not in a way that can easily be predicted. We have all these hidden biases. Generally, the mind is roughly well equipped to get us through life and the judgements we make. It is not wired to make problematic judgements. Problematic judgements originate in complacency, closed-mindedness resulting in stereotypical biases.

An example, there is an old wall street con game if you are giving stock market advice to individual investors. You tell half your clients IBM is going down and half that IBM is going up.

If it goes up, you go back to that half and you tell that half Apple is going up and the other half Apple is going down. After two or three times they go wow people think this guy's on a hot streak. This guy really knows what he's talking about. And yes these stock brokers were sensitive to the way of people's blindness to statistical truths lead them astray.

When its faced with problematic situations, like revising a tree ordinance or developing an adaptive urban forest management plan, the mind doesn't do statistics. It tells stories. And sometimes those stories are skewed in predictable ways. By memory. By the way we think in stereotypes. There is a whole range of things that are beguile the mind that are predictable and systematic. If people can be systematically irrational, then markets and city councils can be systematically irrational.

## **The case for a citizen tree board or commission**

**The Cost of Social Norms.** Why we are happy to do things, but not when we are paid to do them. This is the driver to move away from a department or government official that is responsible for tree care.

**Establish a Tree Board or Commission.** Public involvement, validation and perspective are key. Tree boards provide a means to involve the public in urban forestry management. Tree boards can promote new and existing tree programs by motivating both local government and the public to support urban forest management.

**Two sets of norms pattern behavior.** Understand the norms at play and don't mix the two.

- Social norms as with a tree board or commission (implicit rules of social interaction)
- Market norms - city department personnel who are paid (explicit and hard transactional business rules).

Look for new ways to increase participation. A citizen tree board or commission can promote new and existing tree programs by motivating both local government and the public to support urban forest management. For example, tree boards can encourage citizens to spread the word to help their urban forest, but they don't pay them to do it.

Use social norms where possible rather than create new market norms with fines or financial rewards – these tend to backfire. Example: When a school tried to reduce late-arriving parents by issuing fines, the problem got worse, not better – the fine created a market norm, a paid-for transaction that legitimized the undesirable behavior.

The same has occurred with city councils. A central Florida city council tried to reduce developers removing trees during development by issuing fines, (Over the objections of the tree board the per tree fine dollar amounts were lowered.) The problem got worse, not better – Again, the lowered fine created a market norm, a paid-for transaction that legitimized the undesirable behavior.

The actions of this city council brings us to the next topic.

**Addressing City Commissions.** How can we motivate cities about ordinances and urban forest management?

***Institutional cycles:***

Select an appropriate *Institutional cycle*. Each governmental institution has or creates social cycles that control the flow of relevant activities (*Burch and DeLuca, 1984*). Institutional cycles are critical to human ecosystem functioning, for they provide the guidance and predictability to the ebb and flow of council interaction. Institutional cycles can be measured in terms of frequency (the number of times that persons or groups participate), duration (such as the length of presentation time allocated on the agenda), proportion (the percentage of the population involved) or intensity (the depth of meaning assigned to the cycle, such as an upcoming municipal event). Timing the presentation is critical. Perhaps avoiding stressful circumstances like the period prior to an upcoming election or seasonal holiday. Many Florida city councils meet just once a month. Examination and evaluation of a city council's institutional cycles may directly impact the success of getting an ordinance or revision on the books (fiscal year cycles of funding), (*Gary Machlis et al, 1997*).

There are two aspects of the decision making process, the human part and the method part. For an organization to be able to make rational decisions consistently, it is not enough with just having competent people. Pertaining to the needs of the community and the environment methods and frameworks should support evaluators to be able to stick to normal models of decision making.

## THE HUMAN COMPONENT

The problem of procrastination and self-control: Why we can't make ourselves do what we want to do. Even when it is in their best interests, city councils and city managers are bad at planning for themselves, and worse at following through with the plan.

It can be difficult for decision makers to separate his or her thoughts from how a decision will impact their own work or the organization they are working for even though everyone tries to think of the community's best interest. The "voting paradox", as it has been called. When clear goals are missing, group members will most likely choose alternatives grounded on less sound prerequisites, and will make the leader of the meeting seem more like a dictator.

An example can illustrate this. Commissioners will review public feedback and ordinance concepts before making a final decision. A city planner stated if the board doesn't like the proposed ordinance, they don't have to change anything. One council member saying, "These are all things that are under consideration during this process. And if we don't get anything that's usable, we're not compelled to act on any of it."

The romantic ideal of the overachieving city council ignores the fact that city councils can much more easily do harm than good. Councils can water down, waive, or simply ignore ordinances when unduly influenced or pressured by groups such as developers or planners. When clear goals are missing, group members will most likely choose alternatives grounded on less sound prerequisites.

Furthermore, research has also found that groups, more than individuals, try to justify their decisions with defensible reasons. Their research also indicated this occurs even if the alternatives chosen contradict sound policy. (*Thomas Powell et al. 2011*).

If a city manager was to ask three group members their choice between travelling via bus, train, or car, the manager would always end up with a majority turning down the suggested alternative. If the manager proposes train as the transportation form, it will always be a majority of 2/3 of the group preferring other alternatives. And the same if the manager proposes any of the other forms of transport. It creates a paradox forcing the manager or leader of the meeting to become the dictator. It is imperative to "place yourself in the other person's shoes". Most often people think they are talking about the same thing but are thinking of different things. (*Frisch, 2015*).



Appeal to small groups. When validation, clear methodology and goals are presented, a group will also tend to fall into a uniformity, also described as group thinking effect; especially in small groups (*Schmitd, et al., 2001*).

The effect takes place when individuals in the group do not declare doubts about the direction of the discussion or about a decision just because of the drive not to break the conformity of the group. Try to identify people that like to stay in their comfort zone. Then, suggest breaking into separate discussion groups. New information brought up at a meeting will most likely be discounted for several reasons. One cause is due to the need, of individuals in the group, to pay close attention to the ongoing discussion and will not have the cognitive recourses to take all new information into consideration. (*Schmitd, et al., 2001*).

Another discounting cause implies; new information may challenge earlier discussed alternatives or previous group decisions. (*Schmitd, et al., 2001*). Decide and describe why the old ways are not working as well as they could. Explain why the new is better than the old.

## **Strategy - Keeping Doors Open: Why Options Distract Us from Our Main Objective.**

We all feel compelled to preserve options, even at great expense – energy, time and money; even when it doesn't make sense. When you want commissioners to make a decision, close down their options to good and bad. While telling your story, position your tree ordinance as opening doors and opening new opportunities, rather closing them.

For instance, most people will sacrifice personal pleasure for public image – the reverse-herd effect, choosing to be different to be seen as being different, even if they prefer what others are doing. So base your ordinance marketing strategy on how people behave, not their values, beliefs and opinions nor on rational choice theory. Behavioral economics is a behavior-first tool for marketing with how communities are, not how they say they are.

The truth is, most tree ordinances rely heavily on voluntary compliance. Few communities would support the concept of a patrolling "tree cop" that seeks out violations. However, citizens in many communities are willing to voluntarily comply with restrictions they perceive as reasonable, and report obvious violations to protect their local tree resources. To be successful, tree ordinances should not impose regulations that most local citizens are unwilling to support.

To handle the voting paradox Bob Frisch (2015) recommends five improvements for a better group decision making process.

**1. Specify the desired outcome:** Communicate clearly what must be accomplished. This should prevent the group members not to talk about the same thing and to put aside the bias of self-interests. When the group members understand the goal, it becomes easier to agree on how to reach the goal.

**2. Multiple range of options to reach a goal:** Break the alternative solutions into more than two or three options on how to reach the goal. The alternatives will become more refined instead of simple alternatives such as “accept”, “refuse” or “defer.”

**3. Test fences and walls:** What is possible and not as a solution is not always known and must be clarified. Almost instantly people start to focus on what can't be done when groups think of options. This is more common at an operational level where new council members are not familiar with municipal policies, strategies, or project boundaries. I ask, how do we help these populations?

**4. Surface alternatives early:** By talking about the alternatives and getting to know where all group members' preferences are, will prevent the discussion getting into a locked position at the decision meeting. Two methods of doing such is to either perform a straw poll, with equally weighted votes, to quickly reduce alternatives receiving no votes and pivoting to options receiving the most votes. The other method is not to use weighted votes but instead give all group members a certain amount of points (similar to poker chips). The points are then distributed by the group members in accordance to which alternatives that are believed to generate the best result. This quickly indicates what alternatives are gathering the most support. The procedure can then be repeated to narrow down the alternatives even further. The unequally weighted method has a better chance of not getting into the voting paradox than the equally weighted method.

**5. State each alternatives pros and cons:** Listening to the alternatives and giving feedback to each member is time consuming. Present each alternative in the proper perspective. Give validation to the originator of the alternative concept. Time is better spent on stating the pros and cons before the decision meeting. The difficulty is to come up with complete objectively pros and cons, not intervening with self-interests. Personal validation is essential. Giving criticism on the different alternatives can be seen as criticism to the person who is presenting it. There are three methods how to increase the quality of the material of decision. One is to use an objective person, who is not part in the discussion, that will summarize the alternatives' pros and cons from each group member and present the material. The second method is to let the manager or leader of the meeting ask each group member to come up with two to three perspectives from his or her view. The third method is to present each alternative in a uniform way by identical template allowing easy comparison at a council, taking the whole picture in to consideration and valuing each alternative equally. Harvest the conversation with empathy.

You can increase the chance of a sound decision by **allocating enough time to discuss and reflect upon the alternatives**. It is common to have an agenda where the problem is presented much of the time and giving only a fraction of time to discuss and make a decision.

When new alternatives are presented, a person needs time to reflect about the information and to assess counterarguments. To break up the discussion into several parts, and at the best with free time between the parts, gives the decision makers extra time to evaluate and reflect. (Bob Frisch, 2015).

## **Cognitive Stereotyping** The Bias's that binds.

One advantage of a stereotype is that it enables us to respond rapidly to situations because we may have had a similar experience before.

One disadvantage is that it makes us ignore differences between individuals; therefore, we think things about people that might not be true (i.e. make generalizations). (S.A. McLeod, 2015).

Examples:

Focused on what it should look like. Given: 60 % of all CEO's of Fortune 500 companies are caucasian men 6'-1" or taller. What is the likelihood? Who should be the CEO's of Fortune 500 companies. We have this idea in our head of what they should look like.

Although he didn't get the job even Donald Trump said Mitt Romney looked like a secretary of state. (F. Zakaria, 2016).

Gieco Insurance marketers are very effective at tapping into **Cognitive Stereotyping**. From talking geckos to a recent TV commercial depicting an ice-skating Sumo wrestler. Subtly capturing a shirtless bruiser drifting across a frozen rink in his diaper-like garb performing a corkscrew spiral and closes with the baby bird to muted tones and claps. This ad captures peoples interest and invokes humor by intentionally violating one's cognitive stereotyping of what most people's expectations of what a figure skater should look like. (Martin Agency, "It's not Surprising" -Sumo Wrestler Figure Skating", first aired Nov 22, 2016).

Ask yourself, in your mind do you visualize trees in the places you work, shop and play?  
Is there a cognitive stereotype that the "most livable cities" always have an abundance of trees?

How to prevent others from "shying away" from the word "ordinance". Be organized and prepared. Capture your audience on a personal level with respect and engagement. Bring out the relative personal story before using the "word." The word: "Ordinance" triggers cognitive

stereotyping. While an ordinance applies to an order governing some detail of procedure or conduct enforced by a limited authority such as a municipality. To some, simply uttering the word ordinance could trigger a multitude of stereotypes; act, rule, statute, law, command, code, decree, direction, regulation triggers. As soon as the term arises it could go either way.

It is a great accomplishment for council members pulled by different demands, audiences, constituents and political allegiances to view and support a new municipal regulation as a direction to a desired outcome rather than a cumbersome law.

Perhaps, instill meetings on ordinances around times where burn out is least likely. Previously-held expectations, energy level or mood can irrationally cloud our point of view and even sensory experience. One thing I would like to point out is the power of stereotypes to deceive people in those judgments. As we learn more about how the human mind works, it is predictable we will be irrational, and irrational in predictable ways.

What does that mean for those of us who believe in rationalism, that we should study data make decisions based on the best available information? For this reason, medical judgements and financial judgements are made and work somewhat differently.

For cognitive illusion the analogy is an optical illusion. If you are experiencing an optical illusion even when someone points out that's not water on the highway as you drive through the dessert you still see the mirage. Even when your error is pointed out you are still kind of a victim of it.

The first step in combating stereotypes requires an awareness of the dangers they pose for decision making. The bottom-line is we must understand the concept for interpreting human behavior. We should build decision making environments to account for these errors in human judgement.

The errors the mind makes tell us about the way the mind is. We have discovered and we have shown over and over fallibility is just part of human nature. It is not something to be ashamed of — it's something, in a way, to be embraced and understood, and maybe corrected. Try to channel this notion and use it to guide how to approach the discussion of the ordinance.

### **Questions to ask yourself about the cognitive state of a decision maker:**

1. Is there any reason to suspect motivated errors, or errors driven by the self-interest of the recommending team? Note: This question should never be asked to the persons making or deciding the request. Presenters and decision makers would probably not know it or be aware of it but this might affect their integrity.

2. Have the people making the decision fallen in love with it? We tend to minimize the risk of things we like.

3. Were there dissenting opinions within the decision team? All opinions should be explored. It is, as we discussed in “cognitive stereotyping”, group thinking is common where the group tend to fall into uniformity.

## **Make a compelling presentation.**

Is the base case overly optimistic? Once delivered, it is difficult to backtrack and correct a proposal from optimistic biases. To minimize optimistic forecasts, the presenter must take lead and look at the proposal from an outside view.

Is the worst case bad enough? A member of the group should think of a situation where the worst case has happened and come up with a story about how it might be averted.

Is the recommending team overly cautious? Conservatism or status-quo is common among many people.

Loss aversion may affect a recommending team approach. They may resort to relying on check lists. The biggest problem with checklists is that most people do not like checklists. Checklists are not exciting and procedural. For some using a checklist can feel like a failure. At this point in time the team’s expertise is more important. (*Kahneman & Klein, 2010*).

## **Methods**

Develop a clear vision statement regarding roles and responsibilities in providing services to constituents. Engage with people, make them feel important, validated, useful, a part of the team process.

- **Ensure the vision statement is backed up by several pointed goals.**
- **Piece a story together and tell that story. People are drawn, people want to make the world a more certain place than it is.**
- **Utilize the vision, by ensuring a professional and updated plan is in place to guide future development and operations.**
- **Allow enough time with councils and commission.**
- **Address alternatives early.**
- **Develop on-going, long range, planning efforts to position the agency for success in the future.**
- **Define the role of the public agency as a provider, facilitator and/or partner in the delivery services.**

- **Use an allegory that supports a perceivable aspect of the program.**
- **Avoid data, avoid statistics**
- **Tell the story why new is better than old.**

Summary: Garner community support and advocacy through a tree board or commission. Perspective and personal stakeholder validation is key. Spell out a clear vision in a compelling presentation. Define the roles. Time well spent changes conversation incentives. Engagement maximizes positive improvement to people's lives. The essential point is appropriate persuasion techniques balancing human nature against reality mandates stakeholder participation from beginning to end. Otherwise, marketing a tree conservation or protection ordinance without offering initial public education and receiving public support is a tough sell.

# **APPENDIX**

**ORDINANCE NO. 201 -**

**AN ORDINANCE OF THE CITY OF \_\_\_\_\_, FLORIDA, ADOPTING ARTICLE \_\_\_\_\_ "PUBLIC TREE CARE" AS AN AMENDMENT TO CHAPTER \_\_\_\_\_ ( \_\_\_\_\_ ) OF THE CODE OF ORDINANCES; TO PROVIDE FOR THE CARE OF PUBLIC TREES; TO CREATE A TREE ADVISORY BOARD; TO ESTABLISH PRACTICES GOVERNING THE PLANTING, CARE AND REMOVAL OF TREES ON PUBLIC PROPERTY; TO MAKE PROVISION FOR THE REMOVAL OF DISEASED TREES ON PRIVATE PROPERTY UNDER CERTAIN CONDITIONS; PROVIDING FOR A PENALTY FOR VIOLATIONS; PROVIDING FOR SAVINGS AND SEVERABILITY CLAUSES; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of the City of **Tree City**, Florida, recognizes that trees generally protect and enhance the quality of life and general welfare of the town; and

**WHEREAS**, the citizens of **Tree City** have long valued trees as a natural and often irreplaceable community resource and recognize them as assets for their beauty and service; and

**WHEREAS**, the City Council of **Tree City**, Florida, has further determined that the protection and care of trees located on city property is essential to the present and future health, safety, and welfare of all citizens, and accordingly, have determined that the adoption and implementation of this "Public Tree Care" ordinance is meritorious and necessary.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF **TREE CITY**, FLORIDA:**

**PART 1:** Chapter \_\_\_ of the Code of Ordinances of the City of **Tree City**, Florida, is hereby amended to add Article \_\_\_\_\_ "Public Tree Care" to read as follows:

**"Article \_\_\_\_\_ . PUBLIC TREE CARE**

**Sec. \_\_\_\_\_ . Purpose.**

To enhance the quality of life and the present and future health, safety, and welfare of all citizens, to enhance property values, and to ensure proper planting and care of trees on public property, the City Council herein delegates the authority and responsibility for managing public trees, creates a Tree Advisory Board, establishes practices governing the planting and care of trees on public property, and makes provision for the emergency removal of trees on private property under certain conditions.

**Sec. \_\_\_\_\_ . Definitions.**

As used in this Article, the following words and phrases shall have the meanings indicated:



*Damage* – any injury to or destruction of a tree, including but not limited to: uprooting; severance of all or part the root system or main trunk; storage of material on or compaction of surrounding soil; a substantial change in the natural grade above a root system or around a trunk; surrounding the tree with impervious paving materials; or any trauma caused by accident or collision.

*Nuisance* – any tree, or limb thereof, that has an infectious disease or insect; is dead or dying; obstructs the view of traffic signs or the free passage of pedestrians or vehicles; or threatens public health, safety and welfare.

*Parkway* – the area along a public street between the curb and the sidewalk; or if there is no curb or sidewalk, the unpaved portion of the area between the street right-of-way line and the paved portion of the street or alley.

*Public property* – all grounds and rights-of-way (ROWS) owned or maintained by the City.

*Public tree* – any tree or woody vegetation on city-owned or city-maintained property or rights-of-way.

*Top or Topping* – the non-standard practice of cutting back of limbs to stubs within a tree’s crown to such a degree so as to remove the normal canopy and disfigure the tree.

**Sec. [REDACTED]. Authority and power.**

- (a) *Delegation of authority and responsibility.* The [REDACTED] (Parks and Recreation Director) and/or his designee, hereinafter referred to as the “Director”, shall have the authority and responsibility to plant, prune, maintain and remove trees and woody plants growing in or upon all city streets, rights-of-ways, city parks, and other public property. This shall include the removal of trees that may threaten electrical, telephone, gas, or any municipal water or sewer line, or any tree that is affected by fungus, insect, or other pest disease.
- (b) *Coordination among city departments.* All city departments will coordinate as necessary with the Director and will provide services as required to ensure compliance with this Ordinance as it relates to streets, alleys, rights-of-way, drainage, easements and other public properties not under direct jurisdiction of the Director.
- (c) *Interference.* No person shall hinder, prevent, delay, or interfere with the Director or his agents while engaged in carrying out the execution or enforcement of this Ordinance.

**Sec. [REDACTED]. Tree advisory board.**

The City Council hereby creates a “Tree Advisory Board,” hereinafter referred to as the “Board.”

- (a) *Membership.* The Board shall consist of [REDACTED] members approved by City Council. Members of the Board will serve without compensation.
- (b) *Term of office.* Board members shall be appointed for three year staggered terms. In the event that a vacancy shall occur during the term of any member, a successor shall be appointed by City Council.
- (c) *Officers.* The Board shall annually select one of the members to serve as chair, may appoint a second member to serve as vice-chair, and may appoint a third member to serve as secretary.
- (d) *Meetings.* The Board shall meet a minimum of [REDACTED] times each year. All meetings shall be open to the public. The Board chair may schedule additional meetings as needed.
- (e) *Duties.* The Board shall act in an advisory capacity to the Director and shall:
  - (1) Coordinate and promote Arbor Day activities;
  - (2) Review and update a five-year plan to plant and maintain trees on city property;
  - (3) Support public awareness and education programs relating to trees;

- (4) Review city department concerns relating to tree care;
- (5) Submit an annual report of its activities to the city council;
- (6) Assist with the annual application to renew the Tree City USA designation;
- (7) Develop of a list of recommended trees for planting on city property; and
- (8) Other duties that may be assigned by City Council.

**Sec. [REDACTED]. Tree planting and care standards.**

- (a) *Standards.* All planting and maintenance of public trees shall conform to the American National Standards Institute (ANSI) A-300 "Standards for Tree Care Operations" and shall follow all tree care Best Management Practices (BMPs) published by the International Society of Arboriculture.
- (b) *Requirements of franchise utility companies.* Franchise utility companies shall provide advance notice to the City of their intended non-emergency tree pruning schedule and location of impacted area. The maintenance of public trees for utility clearance shall conform to all applicable utility industry standards.
- (c) *Tree species list.* The Director shall develop and maintain an official list of desirable tree species for planting on public property in two size classes: Ornamental (20 feet or less in height at maturity) and Shade (greater than 20 feet at maturity). Only trees from this approved list may be planted without written approval from the Director.
- (d) *Planting distances.* The Director shall develop and maintain an official set of spacing requirements for the planting of trees on public property. No tree may be planted within the visibility triangle of a street intersection or within ten (10) feet of a fire hydrant.
- (e) *Planting trees under electric utility lines.* Only trees listed as Ornamental trees on the official city tree species list may be planted under or within fifteen (15) lateral feet of any overhead utility wire.
- (f) *Protection of public trees during construction.* Any person, firm, corporation, or city department performing construction in the area of any public tree must employ appropriate measures to protect the tree, including, but not limited to, placing barriers around the tree to prevent any damage.

**Sec. [REDACTED]. Adjacent owner responsibility.**

- (a) The owner of land adjacent to any city street or highway, when acting within the provisions of this Ordinance, may plant and maintain trees in the adjacent parkway area. Property owners are responsible for the reasonable and routine maintenance of trees and other landscaping in the adjacent parkway area.
- (b) No property owner shall allow a tree, or other plant growing on his or her property or within the adjacent parkway to obstruct or interfere with pedestrians or the view of drivers, thereby creating a hazard. If an obstruction persists, the Director shall notify the property owner to prune or remove the tree or plant. If the owner fails to comply with the notice, the City may undertake the necessary work and charge the cost to the property owner.

**Sec. [REDACTED]. Prohibition against harming public trees.**

- (a) It shall be unlawful for any person, firm or corporation to damage, remove, or cause the damage or removal of a tree on public property without written permission from the Director.
- (b) It shall be unlawful for any person, firm or corporation to attach any cable, wire or signs or any other object to any street, park, or public tree.
- (c) It shall be unlawful for any person, firm or corporation to "top" any public tree. Trees severely damaged by storms or other causes, where best pruning practices are impractical may be exempted from this provision at the determination of the Director.

**Sec. [REDACTED]. Certain trees declared a nuisance.**

Any tree, or limb thereof, on private property determined by the Director to have contracted a lethal, communicable disease or insect; to be dead or dying; to obstruct the view of traffic signs or the free passage of pedestrians or vehicles; or that threatens public health, safety, and welfare is declared a nuisance and the City may require its treatment or removal. Private property owners have the duty, at their own expense, to remove or treat nuisance trees on their property. The City may remove such trees at the owner's expense if the owner does not comply with treatment and/or removal as specified by the Director within the written notification period.

**Sec. [REDACTED]. Violations and penalty.**

Any person, firm or corporation violating any provision of this Ordinance shall be deemed guilty of a misdemeanor and shall be subject to a fine not to exceed five hundred dollars (\$500.00) for each offense.

**Sec. [REDACTED]. Appeals.**

All appeals to a violation shall be heard by City Council.”

**PART 2. Savings/repeal.**

That all ordinances or parts of ordinances in conflict with this Ordinance are repealed to the extent of such conflict.

**PART 3. Severability.**

That should any word, sentence, clause, paragraph or provision of this Ordinance be held to be invalid or unconstitutional the remaining provisions of this Ordinance shall remain in full force and effect.

**PART 4. Effective date.**

That this Ordinance shall become effective after its passage and publication according to law.

**PASSED, APPROVED and ADOPTED** by the City Council of Tree City, Florida, on this \_\_\_\_<sup>th</sup> day of [REDACTED], 2017.

\_\_\_\_\_  
Name of, Mayor

**ATTEST:**

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Name of, City Secretary

\_\_\_\_\_  
Name of, City Attorney

