

Exhibit "A"

This agenda item is a follow up to the presentation made by the Department of Public Works to the Town of Lake Park Tree Board on July 12, 2022, regarding the Stormwater Utility infrastructure and the impacts of swale plantings on effective stormwater runoff management and other related topics.

During the presentation, the Board asked several questions, which were addressed by department staff, except as follows (Also see **Attachment 2**):

1. **Board Member Wright asked whether trees removed from the swales could be sold to nurseries.**

Answer: The department has investigated this option and determined that selling trees to a private party may pose certain liabilities to the Town and may require significant coordination and effort to identify potential buyers. This option should be studied further. A legal opinion from the Town Attorney will be requested at a later time.

2. **Board Member Wright asked whether a different type of sod could be used in the swales (other than the Bahia type).**

Answer: The department has investigated this option and while other sod options are available, Bahia sod provides the Town and private property owners with the best value due to its hardiness, drought resistance, and ease of maintenance.

3. **Board Member Wright asked whether pebbles could be used in the swales in place of sod.**

Answer: The department has investigated this option and determined that pebbles are not a cost-effective ground cover option for the Town. Additionally, the use of pebble rock in the swales will result in higher procurement and maintenance costs for the Town and private property owners, while not significantly improving water-filtering and water-conveyance efficiencies for the stormwater system.

Furthermore, based on comments and feedback provided by the Board to the department, two (2) major areas of concern remained to be addressed following the Tree Board meeting of July 12, 2022:

- **Proposed Native Tree Planting List:** The Tree Board requested to investigate additional planting options that could be included in the Town's Approved Native Tree and Plantings List. To address this concern, the department met on two occasions with Town stormwater engineers and landscape architects to review options and subsequently received a substantially more inclusive list. The department is seeking feedback from the Board regarding the revised native tree planting list included on this agenda item as **Attachment 1**, which was developed in accordance with the University of Florida's Institute of Food and Agricultural Sciences (IFAS) Florida Friendly Plant Guide.
- **Proposed Recommendations to Address Existing Plantings in the Swale and Improve Water Conveyance in the Swales:** The Tree Board also expressed concerns regarding the potential gradual removal of established/matured tree plantings in the swales to allow for effective re-grading of the swale, and to be followed by the planting of native, undersized trees from an approved list. In order to address these concerns, the department met on two

occasions with stormwater engineers and landscape architects and as well as with the Town Manager to discuss potential policy changes that could be proposed to the Town Commission to maximize the preservation of most of the existing tree plantings while improving water conveyance in the swales and enhancing operation of the stormwater utility.

Following these meetings, the previously proposed tasks and policy recommendations have been revised to achieve a sustainable balance, as indicated below in **Recommendations b, c, and d**:

RECOMMENDATION	PREVIOUS LANGUAGE	REVISED LANGUAGE
a.	Complete an exhaustive swale plantings inventory	No changes to proposed recommendation/task.
b.	Grandfather native swale tree plantings <u>only</u> .	<p>In coordination with the Tree Board, recommend that the Town Commission establishes policy that would prioritize grandfathering of native and non-invasive tree, except in cases where one or more of the following criteria applies:</p> <ul style="list-style-type: none"> ▪ Tree planting has been determined to be in unresolvable conflict with the scope of an approved Town capital improvement project. All options (i.e.: relocating trees onto private property) should be exhausted to save the tree planting ▪ Tree planting has been deemed to be unviable by a certified arborist working on behalf of the Town ▪ Tree planting represents a public safety hazard (unstable, encroaching into traffic line-of-sight or utility clearance requirements), or has caused or is likely to cause damage to Town-owned or privately-owned property. ▪ Tree planting is listed on the invasive species list ▪ Upon proper notice about tree plantings permitting requirements, the owner of a property abutting the swale planting does not obtain a permit within the allowable time period or is denied such permit.

c.	Remove non-native tree plantings during each swale's scheduled maintenance interval, which is typically 36 months or 3 years (suggested at Town's expense).	This language will be revised to be consistent with revised language in Recommendation (b) . Swale maintenance and re-grading will only be performed in swales that unplanted or become temporarily free of tree plantings.
d.	Plant native tree of property owner's choice (suggested at Town's expense)	This language will be revised to be consistent with revised language in Recommendation (b) . Additionally, incentives (i.e.: vouchers, giveaways, etc.) will be developed in coordination with the Tree Board to encourage the permitting and planting of native trees.
e.	Develop native planting brochure; post to Town website and social media (Attachment 6)	No changes to proposed recommendation/task.
f.	Conduct public meetings on swale plantings	No changes to proposed recommendation/task.
g.	Conduct marketing campaigns on swale plantings	No changes to proposed recommendation/task.
h.	Manage tree giveaways and similar initiatives to ensure adherence with applicable Ordinance	No changes to proposed recommendation/task.

The above recommendations appear in order of priority and proposed to be completed or implemented starting in Calendar Year 2023 and beyond, as budget allows.

Memo

To: Roberto Traviesio, MPA
Director of Public Works, Town of Lake Park

From: Hays Henderson, PLA

Date: 8/25/2022

Re: Town of Lake Park Swale Plant List

The attached information is intended as a guideline for discussion to outline a broad selection of trees for the road right of way swale planting areas within the Town of Lake Park. The plants are selected to provide for a range of native trees and palms that are generally accepted as adapted to the soils, temperatures and rainfall patterns typically found within the city limits of the Town of Lake Park.

However, it is understood that vegetation being designated as a native plant does not also imply that a specific native tree or palm is adapted to all soil types and hydrological conditions found in South Florida. The built environment typically adjacent to a roadway area may have had the native topsoil removed or water flow patterns changed during development that could affect the health and vitality of the selected vegetation. Also, a common denominator is that the locations under consideration are roadway swale areas which are intended as water conveyance structures. For these reasons, the specific site conditions where the native vegetation is planted should be a primary consideration for the selection criteria.

Further, with vegetation being adjacent to a vehicular thoroughfare consideration must be given to the location that allows for clear lines of sight from and to the vehicle, adequate recovery room for vehicles that may stray from the travel lane, and safe passage for a variety of pedestrian users.

The authority used in preparation of the attached list is Native Trees for South Florida, Doc EES-57 by the Department of Environmental Horticulture, Florida Energy Extension Service, UF/IFAS Extension. Reviewed April 2020. <https://edis.ifas.ufl.edu>

The attached list has been edited to remove trees that are noted as problem trees, weak branching, messy fruit litter or produce thorns.

Town of Lake Park Right of Way Plant List

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Scientific Name	Common Name	Natural Height (in feet)	Growth Rate	Soil pH	Hardiness Zone*	Salt Tolerance	Light Requirement	Drought Tolerance	Nutritional Requirement
<i>Acer rubrum</i>	Red maple	35-50	Fast	Wide	C,N,ST	Low	High	Low	Low
<i>Acoelorrhaphe wrightii</i>	Paurotis palm, everglades palm	15-25	Slow	Acid to Neutral	C,ST,T	Med um	Medium, High	Medium	Medium to High
<i>Bourreria succulenta</i> var. <i>revoluta</i>	Strongbark	20	Medium	Wide	ST,T	Medium	High	High	Low
<i>Bursera simaruba</i>	Gumbo limbo, tourist tree	40-60	Medium	Wide	ST,T	Medium	High	High	Low
<i>Chrysophyllum oliviforme</i>	Satin leaf	30-40	Slow	Wide	ST,T	Medium	High	High	Low
<i>Citharexylum fruticosum</i>	Fiddlewood	25-30	Slow	Wide	C,ST,T	Medium	High	High	Low
<i>Clusia rosea</i>	Pitch apple, Autograph tree	25-30	Slow	Wide	T	High	High	High	Low
<i>Coccoloba diversifolia</i>	Pigeon plum	25-30	Slow	Wide	ST,T	High	High	High	Low
<i>Coccoloba uvifera</i>	Sea grape	15-30	Medium	Wide	ST,T	High	High	High	Low
<i>Coccothrinax argentata</i>	Silver palm	10-20	Slow	Wide	ST,T	High	Medium, High	High	Low
<i>Conocarpus erectus</i>	Buttonwood	30-50	Medium	Wide	ST,T	High	High	High	Low
<i>Cordia sebestena</i>	Geiger tree	20-25	Medium	Wide	T	High	High	High	Low
<i>Dipholis salicifolia</i>	Willow-leaved bustic	30-50	Medium	Wide	ST,T	Low	High	Medium	Low
<i>Eugenia</i> spp.	Stoppers	15-20	Slow	Wide	ST,T	High	Medium, High	High	Low
<i>Guapira discolor</i>	Blolly	35-50	Medium	Wide	ST,T	Medium	High	High	Low
<i>Gymnanthes lucida</i>	Crabwood	15-30	Slow	Wide	ST,T	Medium	High	High	Low
<i>Hype/ate trifoliata</i>	White ironwood	30-40	Slow	Wide	ST,T	High	High	High	Low
<i>Ilex cassine</i>	Dahoon holly	25-40	Medium	Acid	C,N,ST	Medium	High	Medium	Low
<i>Ilex krugiana</i>	Tawnyberry holly	25-40	Medium	Wide	T	High	Medium	Medium	Medium
<i>Ilex vomitoria</i>	Yaupon holly	20-25	Medium	Wide	C,,NST	High	Medium, high	High	Low
<i>Juniperus silicicola</i>	Southern juniper	25-30	Medium	Wide	C,N,ST	High	High		Low
<i>Krugiodendron ferreum</i>	Black ironwood	20-30	Slow	Wide	ST,T	Medium	High	High	Low
<i>Leucothrinax morrisii</i>	Key thatch palm	15-30	Slow	Wide	ST,T	High	Medium, High	High	Low
<i>Magnolia grandiflora</i>	Southern magnolia	60-100	Medium	Acid	C,N,ST	High	High	High	Low
<i>Magnolia virginiana</i>	Sweetbay	40-60	Medium	Acid	C,N,STT	Low	High	Low	Low
<i>Myrcianthes fragrans</i>	Simpson's stopper, twinberry	20-30	Medium	Wide	ST,T	High	Medium, high	High	Low
<i>Persea borbonia</i>	Red bay	50-60	Medium	Wide	C,N,ST,T	Medium	High	High	Low
<i>Pinus clausa</i>	Sand pine	60-80	Slow	Wide	C,N,ST	High	High	High	Low

*C=Central; ST=Subtropical; T=Tropical; N=North

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Scientific Name	Common Name	Natural Height (in feet)	Growth Rate	Soil pH	Hardiness Zone*	Salt Tolerance	Light Requirement	Drought Tolerance	Nutritional Requirement
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash	80-100	Fast	Wide	C,ST,T	Medium	High	High	Low
<i>Piscidia piscipula</i>	Jamaican dogwood , fish-poison tree	35-50	Fast	Wide	T	High	High	High	Low
<i>Prunus myrtifolia</i>	West Indi an cherry	15-40	Medium	Wide	T	Low	High	Me di um	Medium
<i>Psuedophoenix sargentii</i>	Buccaneer palm , cherry palm	10-15	Slow	Wide	ST	High	Medium, high	High	Medium
<i>Quercus laurifolia</i>	Laurel oak	60-100	Fast	Wide	C,N,ST	Low	High	High	Low
<i>Quercus virginiana</i>	Live oak	50-80	Medium	Wide	C,N,ST	High	High	High	Low
<i>Roystonea regia</i>	Royal palm	60-125	Medium	Wide	ST,T	Medium	High	Medium	Medium to High
<i>Sabal palmetto</i>	Cabbage palm	45-70	Slow	Wide	C,N,ST,T	High	High	High	Medium to High
<i>Sapindus saponaria</i>	Soapberry	35-45	Medium	Wide	C,ST,T	High	High	High	Low
<i>Schaefferia frutescens</i>	Florida boxwood	20-40	Slow	Alkaline	T	Medium	Medium	Medium	Medium
<i>Simarouba glauca</i>	Paradise tree	35-50	Slow	Wide	T	Medium	High	High	Medium
<i>Swietenia mahogani</i>	Mahogany	35-60	Fast	Wide	ST,T	High	High	High	Low
<i>Taxodium ascendens</i>	Pond cypress	60-100	Medium	Wide	C,N,ST	Medium	High	High	Low
<i>Taxodium distichum</i>	Bald cypress	60-100	Medium	Wide	C,N,ST	Medium	High	High	Low
<i>Tecoma stans</i>	Yellow Elder	10-20	Fast	Wide	ST,T	Medium	High	High	Medium

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