



# City of Pensacola

## Environmental Advisory Board

### Agenda

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Thursday, November 4, 2021, 2:00 PM

Whibbs Conference Room, 1st  
Floor

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**Members of the public may attend the meeting in person. City Council encourages those not fully vaccinated to wear face coverings that cover their nose and mouth.**

**One or more members of City Council may be in attendance.**

#### CALL TO ORDER AND WELCOME

#### ROLL CALL AND DETERMINATION OF QUORUM

#### APPROVAL OF MINUTES

1. [21-00965](#) APPROVAL OF MINUTES - OCTOBER 7, 2021, ENVIRONMENTAL ADVISORY BOARD MEETING

*Recommendation:* That the EAB approve the minutes from the October 7, 2021, EAB meeting.

*Attachments:* [EAB Minutes 10.07.2021](#)

#### PRESENTATIONS

2. [21-00964](#) PRESENTATION FROM JONATHAN BILBY, DIRECTOR OF INSPECTIONS - TREE REMOVAL PERMIT PROCESS

*Recommendation:* That Jonathan Bilby, Director of Inspections, provide the Environmental Advisory Board (EAB) a presentation on the Tree Removal Permitting process.

#### SUSTAINABILITY COORDINATOR COMMUNICATIONS

3. [21-00994](#) EAST PENSACOLA HEIGHTS NEIGHBORHOOD ASSOCIATION TREE TRUST FUND GRANT REQUEST

**Recommendation:** That the EAB consider a Tree Trust Fund Grant request from the East Pensacola Heights Neighborhood Association. Further, that the EAB consider a recommendation to City Council.

**Attachments:** [EPH CanopyRestorationProject logicmodel final](#)  
[EPHNA-Canopy Restoration Grant Proposal-final](#)  
[EnvironmentalAdvisoryBoardPresentation](#)

## ACTION ITEMS

4. [21-00974](#) ANALYZING THE IMPACT OF LAWN MANAGEMENT PRACTICES OF CITY PROPERTY AND THE USE OF TWO-STROKE GAS LEAF BLOWERS ON GREENHOUSE GAS EMISSIONS IN THE CITY AND SUGGESTIONS FOR LOWERING ANY EMISSIONS ASSOCIATED WITH TWO-STROKE BLOWERS.

**Recommendation:** To be determined by motion and majority body approval.

**Attachments:** [Referral to EAB -- GHG Emissions & two-Stroke Gas Leaf Blowers.d](#)  
[CoP 2 Stroke Leaf Blowers](#)

## DISCUSSION ITEMS

5. [21-00966](#) REVIEW OF SECTION 12-6-1 TO 12-6-6 OF THE TREE AND LANDSCAPE ORDINANCE
6. [21-00975](#) TREE ORDINANCES AFTER SECTION 163.045; CONTROVERSIES AND STRATEGIES - POWERPOINT

**Attachments:** [Lindsay Tree Ordinances PPT - corrected](#)

7. [21-00949](#) SINGLE USE PRODUCTS ON PUBLIC PROPERTY

**Attachments:** [Reduction-Removal of styrofoam, plastic bottles & Non-environmental](#)  
[Single-Use Products Policy briefing sheet FINAL](#)  
[Single-use products policy FINAL](#)  
[Green Works Foam Bags Straws](#)  
[Plastic Products Ban in Other Cities](#)  
[Webstaurant price comparison](#)  
[Single Use Info](#)

8. [21-00976](#) INTEGRATED PEST MANAGEMENT (IPM) PROGRAM

Attachments: [City's IPM Plan](#)  
[IPM Plan For Athletic Fields\\_KF](#)  
[Kozman Comments COP IPM Plan](#)

**BOARD MEMBER COMMENTS**

**PUBLIC COMMENT**

**ADJOURNMENT**

*If any person decides to appeal any decision made with respect to any matter considered at such meeting, he will need a record of the proceedings, and that for such purpose he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.*

*The City of Pensacola adheres to the Americans with Disabilities Act and will make reasonable accommodations for access to City services, programs and activities. Please call 435-1606 (or TDD 435-1666) for further information. Request must be made at least 48 hours in advance of the event in order to allow the City time to provide the requested services.*



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00965

Environmental Advisory Board

11/4/2021

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### **LEGISLATIVE ACTION ITEM**

**SPONSOR:** Kristin Bennett, Chair

**SUBJECT:**

APPROVAL OF MINUTES - OCTOBER 7, 2021, ENVIRONMENTAL ADVISORY BOARD MEETING

**RECOMMENDATION:**

That the EAB approve the minutes from the October 7, 2021, EAB meeting.

**HEARING REQUIRED:** No Hearing Required

**SUMMARY:**

Approval of Minutes

**PRIOR ACTION:**

October 7, 2021 - EAB Meeting Held

**FUNDING:**

N/A

**FINANCIAL IMPACT:**

N/A

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

- 1) EAB Minutes 10.7.2021

**PRESENTATION:** No



Pensacola Energy has the exclusive franchise to serve Escambia County, excluding town of Century's permit area and Pensacola Beach. They currently serve a little over 45,000 customers, employ 124 people, operate 3 CNG fueling stations, maintain 1756 miles of pipeline infrastructure, and support the community through school and sports sponsorships, United Way and other community events. Pensacola Energy and the city have about 77 vehicles that are fueled with CNG and within Escambia County, there are about 358 vehicles currently using CNG.

Pensacola Energy has been working on reducing their greenhouse gas emitted into the atmosphere over the past few years. One of the biggest areas was the replacement of 88 miles of cast iron pipe with polyethylene pipe. They are now focusing on leak prone areas with bare steel pipe. They are also looking at purchasing carbon offset gas to include in the gas stream to their customers and should be available in 2022. Annually, they are leak surveying all business districts and gate stations and inspect all gas mains on a 3 year rotation. She further reviewed other efforts Pensacola Energy is working on to reduce greenhouse gas emissions through reevaluated work procedures to minimize excess gas released into the environment and looking at future technologies. Over a 3 year period, Pensacola Energy has reduced CO2 direct emissions from facilities by 22%.

She highlighted some points of the current state of the natural gas industry. It is the least carbon intensive of any fossil fuel. The cost competitiveness and reliability make it a critical component of moving into a low carbon energy future. Within the United States there is an existing infrastructure of 2.9 million miles of gas main. It is 91% efficient from production to the consumer. Gas appliances offer greater efficiency for customers. The largest growth in natural gas has been in electricity generation.

Other points reviewed included renewable natural gas, biomass, hydrogen and hydrogen properties. Pensacola Energy continues to research and stay in the frontline of sustainability efforts and pursue opportunities to improve the environment.

Board members had several comments and questions about the use of hydrogen and also about the ability to track amount of gas released as a result of leaks.

4. Update: Sustainability Coordinator Mark Jackson

Sustainability Coordinator provided an update on his presentation to City Council on the baseline GHG inventory results. The report is posted on the City's website, under the residents tab, click on resiliency/sustainability.

A representative from the East Pensacola Heights Neighborhood Association is present and will be bringing something to the next meeting regarding interest in submitting an application for a grant from the Tree Trust Fund to get some trees to plant for Arbor Day. The Board would need to make a recommendation on the request and forward to the City Council for action. There is not a whole lot of detail in the ordinance and that is why they are working on developing an application that is standardized. There is no process currently in place.

Chair Bennett stated that it was decided several meetings ago that the process would be reviewed as part of the overall review of the tree ordinance.

Council Executive indicated that it was in the City Code, under Section 12-6-10(c-2).

Ms. Edna Lora, representative of the East Pensacola Neighborhood Association indicated that they were willing to partner with the City and the EAB to develop a process that is easy to follow for other neighborhood associations. They have an energized neighborhood association when it comes to trees. They have partnered with the Boy Scouts of America, the Native Plant Society, the ECUA for compost, the extension service. Their approach will be to train the trainer, community building, plant a tree, build a community. They look forward to being the first group to try and get funding from the Tree Trust Fund grant program. They want to follow the city of Orlando's right tree in the right place approach, when planting trees, offering free trees to people in the community who are resident homeowners that lost trees in the past that have a right of way and 20 feet from the right of way in their front yard, and the side yard. They will sign up to get a tree, sign a memorandum of understanding to take care of the tree for at least the first year. There will be a protocol established for where the trees are planted. They are going to apply for the grant and are developing the processes within their grant proposal structure. They are going to ask for 25 trees, larger trees that are probably 30 gallon. They will be applying for the tree diapers for each of the trees. Each person who wants a tree and is approved to get the tree, will be thoroughly vetted. She will have the grant proposal for the Board at the next meeting. It is going to be an on going project for the community because of the loss of the tree canopy.

Member Kopytchak indicated that it would be very difficult to grant funds carte blanche. The Board doesn't have any idea of where the trees are going what the trees are, but here's the funds. There are a lot of specific concerns when you get into right of ways, the types of trees, the size, under power lines, full view when you pull up to corners, especially in the older areas of the city. When you ask for grant funds, the Board will want to see what tree is going where and so forth.

Member Richards asked whether it would be on City right of way or private property.

Ms. Edna Lora indicated that it could possibly be on private property. The City of Orlando does have a caveat that it can be 20 feet from the right of way into the front yard, so they are going to use that as a precedent, since these are government funds. They will be using the city of Orlando's successful tree planting/replanting program as the foundation for their program.

City Council Member Sherri Myers cautioned the Environmental Advisory Board to be very careful with this proposal. In the past the City has planted trees within the right of way in front of residential property. New property owners move in and they don't like the tree and they take it down. The tree ordinance needs to be revised to be careful where the trees are planted. If they are planted in residential neighborhoods, in front of private property, there needs to be some kind of agreement signed by the property owner that the tree cannot be removed without approval of the City. There are a lot of legalities that need to be flushed out with the City Attorney's office. Of course, it is up to the City Council to decide if the Council wants to use the tree trust funds in this manner.

Council Executive indicated that the Finance Department as well as Legal would need to review as to whether taxpayer dollars can be expended on private property. There might be some alternative avenues available to get trees to East Pensacola Heights.

Chair Bennett indicated that there would be a presentation on the proposal at the next meeting and encouraged the Board to review the section of the tree ordinance regarding the tree trust funds. The request would be under the existing ordinance. The Board could consider in light of the presentation and request, what revisions might need to be made to the ordinance.

5. Discussion Items:
  - a) Comprehensive Review of the Tree Ordinance--  
Review of Sections 1 - 4

Jonathan Bilby, Inspection Services Director explained his role as far as the tree ordinance goes. He is involved with new development, whether residential or commercial, in the tree and landscape review process. Commercial is going to be typically all protected trees. Residential will be if there is a heritage tree involved.

One of the challenges he faces is having new designers, landscape architects, civil engineers that come into the city and have never read the ordinance and not applying it correctly. With commercial development they look at all the protected trees within the appendix and that depends on the size. Once it meets the minimum size, it becomes a protected tree. Once it becomes 4 times that diameter, it becomes a heritage tree. When they look at plans, first and foremost is that they retain 10% of the trees on their property, if they are in one of the applicable zoning districts that require the tree review. That can be maintaining the trees in their current state, where they sit or it can also involve some relocation of trees. Secondly, there is a calculation that happens. They look at the trees that are protected, the ones that they are proposing to take out, they have to calculate the number of trees, calculate the inches on site and anything they retain above the 10% level, they get a credit towards their mitigation. Anything they are required to mitigate, they have to replant on that site with one of the tree species they have taken out and have to show a valid replanting plan of where those are going in. Any shortfall, they require \$400 per tree that they cannot plant be paid into the tree mitigation fund. That all has to be on the plans before moving forward with an approval. Secondly, they look at signage locations. On the plans, they have to have their required signage. Any one heritage tree that is taken out requires signage for notification to the public and any ten protected trees requires signage. The signs are required to be up fourteen days prior to the permit issuance. A new change in the ordinance is that they notify the City Council member in the district where the development is occurring. They don't issue a tree removal permit as is done by the Parks Department for already developed property, it is in conjunction with the building permit. Once the arborist is onboard, there will be a streamlined tree removal process that will cover both aspects.

Further discussion occurred regarding the actual application permitting process, whether the 14 day signage posting was enough time to allow for a protest and for the Council member to reach out to the developer to try and save trees, the appendix A list of trees, the replant list which is a guidance of what trees can be planted, what applicable zoning districts are excluded. Some of the downtown districts are exempt as well as the airport zoning district. The appeal process is for the person who applied for the permit. There are certain types of medical facilities, hospitals, overnight stay care facilities that are exempt from the tree replanting and retention but they do have to pay \$5,000 per acre into the tree mitigation trust fund. With regard to existing commercial property, that is handled by the Parks and Recreation Department. There is a very distinct set of criteria used to determine existing tree removal. It is typically going to be something that is diseased or causing structural damage to a building. Eventually, the City Arborist will be the person to handle tree removal permits, working hand in hand

with the Inspection Department on any new development. With regard to new development, they require a licensed landscape architect or civil engineer to provide a tree removal plan that shows existing trees on the plan and they do a site visit. Trees are sometimes removed without permits. There are fines, per caliber inch for protected trees that are removed.

There are a lot of exemptions on residential property development that you don't get with commercial development. They are not looking at protected trees as much as they are looking at heritage trees. They look at the building, how it is located on the lot, how the set backs are on the lot, the proposed driveways and the tree location on the plans. They do a site visit, and determine whether it is a heritage tree. If it is not, they can go ahead and take it out. If it is a heritage tree, if there is a way to move or re-site the house, then they can review their plan to re-site it. If there is no way to re-site the house, then it can be eligible for removal. There is no 10% retention on residential properties, they are just looking at the heritage trees. They do pay the \$400 per tree that they can't replant. They are eligible to plant some trees to offset the mitigation, but on small lots, they can't do a whole lot. In the already developed residential, if it is something that a tree is damaging the foundation there are mitigation fees, but it is capped at \$1,000. There is a requirement to plant one tree on residential property in the front yard. If you are requesting a demolition permit for an existing house and want to remove a heritage tree, they typically would not approve that without having a plan going forward with what is going to be built on that lot.

There was also discussion on the tree pruning done by Gulf Power and whether there could be anything put in the franchise agreement concerning the way the trees are being pruned, especially in the 12<sup>th</sup> Avenue tree tunnel.

With regard to what constitutes a subdivision, it is usually 3 or more lots, it will require an actual plat, requires civil plans, stormwater review, etc. The only thing they are looking at in subdivisions is the heritage trees.

Inspection Services Director volunteered to come back at the next meeting of the board and do a presentation on the plans review process.

Chair Bennett indicated that she and Member Kozmon had submitted comments on Sections 1 – 4 and asked if other Board members had any comments. Some of her's were questions, like why are some things exempt, the guidelines used.

Council Executive stated that he would take the comments submitted and combine into a single document that the Board can then review and if there are questions then they can be compiled and sent to Bill and Jonathan for their input.

Chair Bennett suggested looking at Sections 12-5 and 12-6 for next month and that they be included in the single document being prepared for the next meeting.

Council Executive indicated he would like to receive the comments by October 22 so that they can be compiled and included in the document.

b) RePlant Species -- Member Blase Butts (*background information on 9/2 EAB Agenda*)

Member Butts explained how he came up with the list of trees and there are several on that list that are not applicable or even used here. He wants to be sure that when the EAB makes recommendations on the species of trees that they have good viability for Pensacola.

Sustainability Coordinator commented that there are nurseries that specialize in native species and will have things that most nurseries don't have. The best source to go to in looking at species would be IFAS. He stressed planting the right tree in the right place with the right soil.

c) Review of Power Point Presentation made by Assistant City Attorney Heather Lindsay (*previously distributed*)—Member Kyle Kopytchak

Member Kopytchak said that the power point was a concern to him and he brought this up in regard to the mitigation process. He asked if there was any circumstance where you could deny a homeowner cutting down a tree. He handed out information he received from a public records request where he asked her a specific question as it relates to the mitigation process and the City taking the rights of an individual property owner. He has an issue with it. He just wanted the Board to be aware of it when they are reviewing the mitigation process in the tree ordinance.

d) Referral from City Council—Environmental Impact of the Use of two-stroke gas leaf blowers on greenhouse gas emissions

Chair Bennett reviewed the referral from the City Council from the September 23 City Council meeting which was to review and recommendation – Analyzing the impact of lawn management practices of city property and the use of two-stroke gas leaf

blowers on greenhouse gas emissions in the city and suggestions for lowering any emissions associated with two-stroke blowers. This is more narrow than what the Board discussed at the meeting last month when it was brought to the Board on the context of the noise ordinance. The Council discussion was to review this item separate from the noise ordinance.

Council Member Myers addressed the Board and reviewed the motion to refer this issue to the Board. Council Member Hill made a friendly amendment to have the EAB complete its review and return any recommendation to the Council by the end of two EAB meetings. If you read the summary on the legislative text, it makes it clear we are talking about all city property, it covers parks, athletic fields, right-of-ways, golf course and other green spaces. Basically, any maintenance done on public lands. This came about from the baseline study done by the Sustainability Coordinator on greenhouse gas emissions. It did not include how we maintain our public lands and what equipment we use.

Sustainability Coordinator indicated that it does include any gas purchased and utilized in any of our vehicles, even other equipment. It is put on there as other equipment, it means that it doesn't have a license plate.

Council Member Myers recommended that the Board might want to review the discussion on this item from the September 23 City Council meeting, go to 53.02 on the video and also may want to review the City Council workshop held on September 20. She did collaborate with John Herron on the information in the booklet that John Herron provided to the Board. She thought it would be helpful to provide the Board with some research. This has to do with City operations only, including our contractors. The booklet is only providing the science about emissions and the harmful impact on human health of the chemicals that are used by two stroke engines, noise impact and other information. The Council has control over what the city does. The City Council can determine that we are not going to buy any more two stroke engine leaf blowers. That's a budgetary and policy decision. For example, the Board could recommend that we reduce our greenhouse gas emissions by using battery operated leaf blowers and also require the contractors we hire to also use environmentally sensitive equipment. The science is there and how to address it.

Sustainability Coordinator stated that the information in his report did not include outside contractors and if that is to be a recommendation, it would have to be something that is captured in with the negotiation of the next contract for those providers because

we would be asking them to provide information that is not currently provided. He further explained the variables used in calculating the other uses in his report and indicated that he would try to put together some information for the next meeting. He looks at it holistic as to the cost/benefit ration. How much more would it cost to have Parks and Rec's budget increase to buy these things or to require some kind of change to what is currently done with our contractors and how much benefit we would get out of it. We're trying to go with 30% renewable energy, have to buy solar and put on our buildings. With a limited budget, those are the kind of conversations that will have to happen internally with staff to determine how to do it. If Council approves that recommendation, then as staff, we will go forward with that. What he has seen from this Board and Council, the priority is 30% renewable energy.

Member Kopytchak stated he was prepared to move forward. All of the research has been done. This is not new. We start with one department, maybe parks and recreation and do a test, manage the test and then expand it from there. **He motioned to create a section/link on the Environmental website that provides education to the public and commercial landscapers on the environmental impacts of two stroke gas leaf blowers and examples of best practices that are encouraged. His second motion is to initiate a test in our own city with the purchase of battery-powered equipment for our Parks and Recreation Department, study and post the reduction of toxins, the operator health benefits, the resident health benefits and the cost savings. Thereafter, we should invite our commercial vendors to join this test and provide incentives to switching to battery-powered equipment for our parks and other city properties.**

Member Richards stated that it shouldn't be limited to leaf blowers, we should be talking about trimmers, etc.

Chair Bennett pointed out the referral was for two stroke leaf blowers and asked for clarification on the process.

Council Executive indicated that the first motion would need to have a second, input by the public and vote taken. If there is no second, then go to the second motion.

Chair Bennett stated we have a motion. Is there a second? **There was no second. Motion died for lack of a second.** Chair Bennett read the second motion made by member Kopytchak and called for a second. **There was no second. Motion died for lack of a second.**

Further discussion by the Board on the actual referral from Council contained in the summary occurred. The Board needs to know what the impacts are, what type of equipment is being used, how many, how much acreage is being maintained by the city staff and contractors, equipment types and amounts, being able to meet the time line in the referral.

Sustainability Coordinator volunteered to try to gather some of the information requested and have it available for the next meeting.

Council Executive indicated that if the Board felt they needed more time, that they could request an extension.

Chair Bennett indicated her preference would be to try and get something by the end of the next meeting, keeping the focus on gas leaf blowers.

John Herron, 1900 East LaRua Street addressed the Board pointing out some of the statistics and research in the information he provided the Board. He encouraged the Board to expand their scope on the referral as much as they deem appropriate. There are a lot of issues, with not only the noise, but also the green house gases, the particulate matter, PM10, the mold spores coming off the ground, the pesticides, the herbicides get injected into the lungs and PM 2.5 is the stuff that comes out of the engine, the benzine, all of the carcinogens, the environmental and social injustice and the impact on the workers.

Ms. Phyllis Bardin, 1409 East Gadsden Street addressed the Board via phone, regarding the environmental effects of gas powered leaf blowers.

Ms. Rosemary Bishop, 1313 North 14<sup>th</sup> Avenue voiced her opinion on the use of gas leaf blowers and the harmful effects and suggested that a good place to start would be with the public parks.

Ms. Eve Herron, 1900 East LaRua Street commented that the City should follow Mt. Brook, Alabama and go Green with landscaping in the public parks and neighborhoods. Establish incentives for third party landscapers to initiate green landscaping practices and at a minimum insist that they follow manufacturing guidance when handling landscaping equipment. There is a need to address commercial landscaping practices in neighborhoods.

Council Executive indicated that there were two individuals who filled out on-line forms that he's been unable to reach, getting voice mail both times he's called.

Chair Bennett indicated that further information would be forthcoming on what the City is currently doing and will be discussed at the next meeting.

e) Integrated Pest Management

Chair Bennett stated that this was included within the priorities that the Board set forth at the beginning of the year. The plan was developed for parks and recreation and the Board was going to look at extending it for other departments within the city.

Council Executive indicated that this was an item that Member Fox was working on and that it could be included on the agenda for the next meeting.

6. Board Member Comments/Updates, Reports and Announcements

a) Single Use Products on Public Property—Member Blase Butts (*background information on 9/2 EAB Agenda*)

Member Butts commented on information he provided from the City of Orlando on restricting the use of Styrofoam containers on city owned property and whether this was something that the Council would want to consider extending to all city buildings and parks.

Member Richards indicated that it was a Mayor's decision to switch to paper products city wide and that no new Styrofoam would be bought citywide.

Chair Bennett asked the Council Executive to find out what the City is currently doing citywide.

Member Richards reported that the master gardeners are having a garden to table sale this Saturday, October 9 at the extension building on Stefani Road. He also mentioned the information from the American Arborist Association on developing a tree ordinance.

7. Public Comments—Open Forum

No further public comments.

8. Adjourn

There being no further business to come before the Board, the meeting was adjourned at 5:33 p.m.



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00964

Environmental Advisory Board

11/4/2021

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### **PRESENTATION ITEM**

**FROM:** Kristin Bennett, Chair

**SUBJECT:**

PRESENTATION FROM JONATHAN BILBY, DIRECTOR OF INSPECTIONS - TREE REMOVAL PERMIT PROCESS

**REQUEST:**

That Jonathan Bilby, Director of Inspections, provide the Environmental Advisory Board (EAB) a presentation on the Tree Removal Permitting process.

**SUMMARY:**

During the October 7, 2021, EAB meeting, Mr. Bilby had a discussion about the process from the Inspection Services standpoint. Mr. Bilby offered to make a presentation regarding the process during the November meeting.

**PRIOR ACTION:**

October 7, 2021 - Discussion between EAB and Mr. Bilby regarding the tree removal process.

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

1) None

**PRESENTATION:** Yes



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00994

Environmental Advisory Board

11/4/2021

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### **ACTION ITEM**

**SPONSOR:** Kristin Bennett, Chairperson

**SUBJECT:**

EAST PENSACOLA HEIGHTS NEIGHBORHOOD ASSOCIATION TREE TRUST FUND GRANT REQUEST

**RECOMMENDATION:**

That the EAB consider a Tree Trust Fund Grant request from the East Pensacola Heights Neighborhood Association. Further, that the EAB consider a recommendation to City Council.

**SUMMARY:**

Section 12-6-10 (c)(2) of the City Code establishes a grant program with funds coming from the Tree Planting Trust Fund, by stating:

(2) A grant program is hereby established for community organizations such as neighborhood associations, civic organizations, and garden clubs, according to the following criteria:

- a. Each grant is limited to 50 percent of the cost of the proposed project up to \$5,500.00;
- b. The tree planning trust fund must have sufficient funds for the project requested;
- c. Grant requests must be submitted to the environmental advisory board for review prior to consideration by the city's designated arborist and city council;
- d. The city council must approve each grant request; and
- e. The funds must be utilized for providing trees or other appropriate vegetation along with associated irrigation that will help restore the tree canopy as deemed appropriate by proper planting location requirements and may enhance the natural beauty of the community, serve to deter graffiti or the defacement of public or private property and may create sound buffers where desirable.

The East Pensacola Heights Neighborhood Association is making a grant request based on the following budget:



## East Pensacola Heights (EPH) Canopy Restoration and Community Building Project

**Situation:** There is an agreement between researchers and the general public that a healthy tree canopy in suburban settings provides many benefits. The 2014 Pensacola Urban Canopy Study states that trees' benefits are solid and unquestionable, including improving water quality, lowering ambient temperatures, saving energy, reducing noise and air pollution, increasing neighborhood desirability and quality of life, enhancing property values, providing wildlife habitat, and providing aesthetic benefits. In the East Pensacola Heights community, tree loss from storms, including Hurricane Sally, new development, and the prevalence of the fragile and relatively short-lived Laurel Oak species has significantly reduced its tree canopy coverage. The East Pensacola Heights Neighborhood Association plans to address this loss by leading a neighborhood tree planting project with an emphasis on planting native long-lived hurricane-resistant canopy trees to increase community tree canopy coverage. The project includes outreach and education to help homeowners properly plant and care for new trees, keep existing heritage trees healthy as well as adopt more environmentally friendly landscape practices.

Inputs	Outputs		Outcomes – Impact		
	Activities	Participants	Short	Medium	Long
<ul style="list-style-type: none"> <li>East Pensacola Heights Neighborhood Association (EPHNA)</li> <li>Emerald Coast Utility Authority (ECUA) - Larry Williams, District 3, Board Member</li> <li>Boys Scouts of America Gulf Coast Council – Troop 425 James Zettler, Scout Master</li> <li>UF Extension Service, Beth Bolles, Extension Agent</li> <li>Florida Native Plant Society Longleaf Pine Chapter, Duane Tant, Member</li> <li>East Pensacola Heights Community</li> <li>City of Orlando Street Tree Program – Kathy Hall, Program Manager</li> <li>Miami-Dade Street Tree Program – Nikki Anderson, Program Manager</li> </ul> <p><b>Vendors</b></p> <ul style="list-style-type: none"> <li>Panhandle Growers Nursery</li> <li>Lowe’s / Home Depot</li> <li>Superior Trees</li> </ul>	<p><b>Pre-Project</b></p> <ul style="list-style-type: none"> <li>Reach out to possible partners, make connections with partners, research successful street tree programs – EPHNA – Edna Lora</li> <li>Fundraiser October 23, 2021 EPHNA - Edna Lora and Duane Tant – Complete – raised \$522.00                             <ul style="list-style-type: none"> <li>Plant a tree, build a community demonstration</li> <li>Garden tour of Duane Tant’s food forest garden</li> <li>Community-wide yard sale and membership drive</li> </ul> </li> </ul> <p><b>In-Project</b></p> <ul style="list-style-type: none"> <li>Outreach – EPHNA                             <ul style="list-style-type: none"> <li>Door knocking campaign with door hangers (create and produce 500 door hangers with info on how to order tree)</li> <li>Develop and produce flyers to post in businesses</li> <li>Tree planting train the trainer event -Beth Bolles of UF Extension Service / EPHNA / Boys Scouts</li> </ul> </li> <li>Education – Plan and conduct educational sessions to include developers, real estate professionals, and landscaping contractors that work in EPH – EPHNA Environmental Committee</li> <li>Develop and finalize sign up process to ensure trees are planted correctly and the correct tree is chosen to plant (Right tree/right place) City of Pensacola and EPHNA</li> <li>Finalize list of approved native trees –City of Pensacola/EPHNA</li> <li>Create planting contract for ongoing tree maintenance – City of Pensacola / EPHNA</li> <li>Plan tree planting day scheduled for January 23, 2022 (day after Florida Arbor Day) – EPHNA</li> <li>Call for delivery of donated compost – EPHNA</li> <li>Order mulch and pick up – EPH Neighborhood Association/ ECUA Larry Williams</li> <li>Enrollment</li> </ul>		<ul style="list-style-type: none"> <li>Raise funds to pay for items not included in grant – complete (raised \$522)</li> <li>Raise awareness of importance of restoring the tree canopy in EPH</li> <li>Excitement generated about tree planting project</li> <li>Process and necessary documents developed and used by project participants</li> <li>Tree recipients fully understand responsibility of tree care and maintain trees appropriately</li> <li>Trees are put in the ground to help restore tree canopy</li> </ul> <ul style="list-style-type: none"> <li>Stronger social connections within EPH</li> <li>Citizens are more informed about the importance of maintaining tree canopy and the importance of trees in our ecosystem</li> <li>Generate interest in environmental issues facing our community</li> <li>Increase EPHNA membership</li> <li>More neighbors involved in community events</li> </ul> <ul style="list-style-type: none"> <li>EPH tree canopy constantly being restored proactively by citizens of EPH</li> <li>Citizens understand and embrace green infrastructure</li> <li>Community health and cohesion improved</li> <li>Runoff into watershed reduced</li> </ul>		

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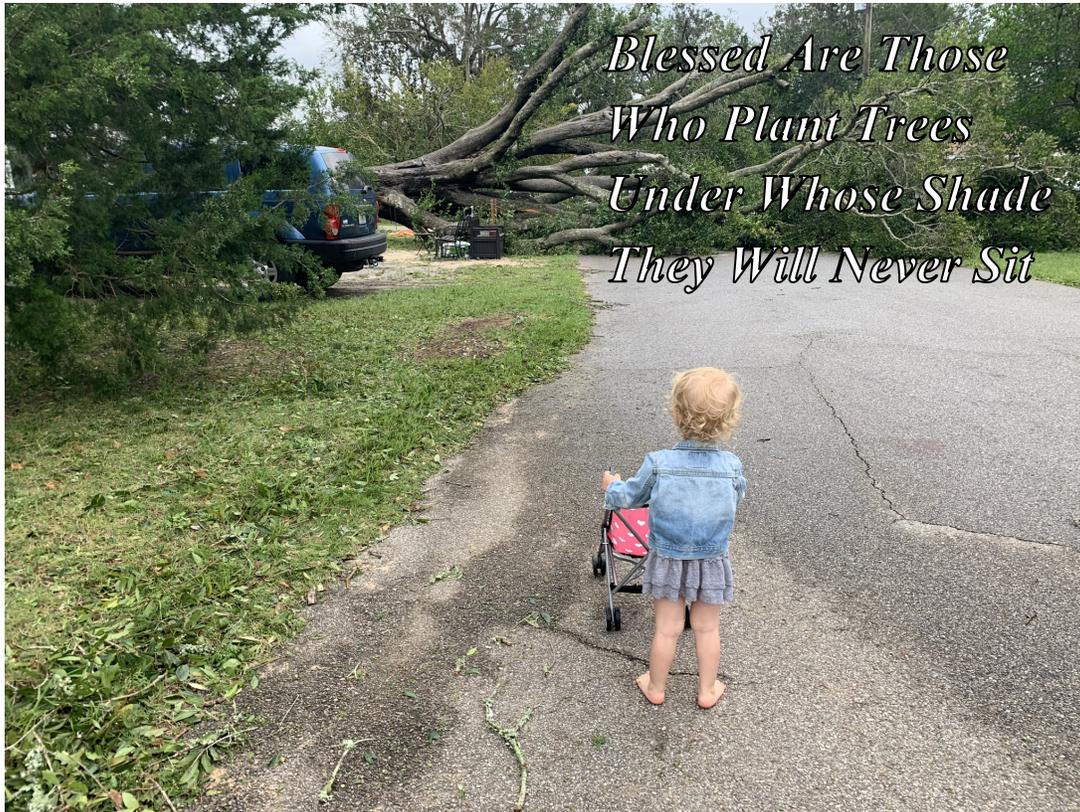
<ul style="list-style-type: none"><li>○ Follow developed sign up process to select tree recipients</li><li>○ Site visits to select right tree/right place</li><li>○ Recipient signs care contract and is placed on planting schedule</li><li>● Planting Day – All Partners<ul style="list-style-type: none"><li>○ Gather tools, supplies and trees at Lion’s Park</li><li>○ Train the trainer at Lion’s Park</li><li>○ Volunteers plant trees with help from homeowner</li></ul></li></ul> <p><b>Post-Project</b></p> <ul style="list-style-type: none"><li>● Ongoing maintenance and tree care – EPH Neighborhood Association/tree recipients<ul style="list-style-type: none"><li>○ Plan and conduct education campaign on social media about tree care and the importance of urban forestry – EPHNA Environmental Committee</li><li>○ Spot check health of trees and communicate with home owners on issues providing help as needed -</li><li>○ Plan and conduct educational sessions about green infrastructure, the use of native and edible plant species in landscaping design –EPHNA Environmental Committee</li></ul></li></ul>
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<p>Approach</p> <ul style="list-style-type: none"><li>● Leverage community assets whenever possible and meet people where they are.</li><li>● Transparency through clear communication of expectations and challenges.</li><li>● Use of asset-based community development and community organizing models –residents, associations, nonprofits, government, and the business community, act collectively as co-producers of the community’s well-being.</li></ul>
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## East Pensacola Heights Tree Canopy Restoration Project

East Pensacola Heights Neighborhood Association (EPHNA)

The City of Pensacola Tree Grant Program

November 2, 2021

### **Abstract:**

The objective of the project is to restore large canopy trees to the neighborhood of East Pensacola Heights through a community-wide tree-planting effort led by the East Pensacola Heights Neighborhood Association. Due to tree loss from storms, most recently Hurricane Sally, and the prevalence of the fragile Upland Laurel “water” Oak species in our community, EPH neighborhood storm protection and resiliency has been greatly degraded. Our goals include planting hardier native storm-resistant species creating wind barriers for future storms, increasing energy efficiency of our homes, increasing property values and improving watershed protection- functions. We envision promoting the overall beauty and livability of East Pensacola Heights by providing a healthy canopy for the next four generations while building knowledge with our neighbors concerning “the right tree, the right place,” and that proper care and stewardship will ensure the health of the trees and the long-lasting return on investment (ROI) of this project.

### **Introduction**

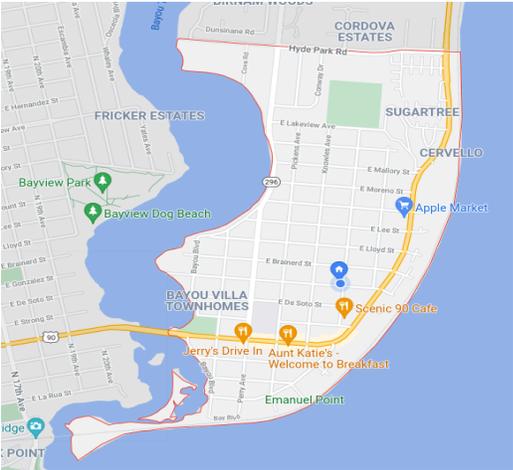
Due to extensive canopy loss in recent years, a strong interest in canopy revival, and as an organized and unified neighborhood association, we believe that East Pensacola Heights (EPH) is an excellent candidate for a community-led tree planting program. For this reason, we are requesting the city’s assistance through the grant program established in the recently updated Tree Ordinance.

As The City’s 2014 Pensacola Urban Canopy Study states, the benefits of trees are solid and unquestionable, including “improving water quality, lowering ambient temperatures, saving energy, reducing noise and air pollution, increasing neighborhood desirability and quality of life, enhancing property values, providing wildlife habitat and providing aesthetic benefits.” (32) We label these benefits Community ROI . Hurricane Sally and the ensuing losses to our canopy, combined with many neighborhood trees reaching the end of their natural lifespan, have made trees a priority to promote our objectives of livability and quality of life. This grant will provide future residents and us with a healthier, more livable EPH.

East Pensacola Heights Neighborhood Association is a 501c3 nonprofit created in the spirit of friendship and community with the purpose of promoting the interests and well-being of our neighborhood.

The EPH Neighborhood Association was re-established in March 2020 “to provide an organized framework for enhancing the livability of the neighborhood, for preserving the quality of life and values of the neighborhood, maintaining or increasing property values in the neighborhood, and facilitating communication between the neighborhood and local government” (Statement of Purpose 2020). Concern about the loss to our tree canopy was a key motive for many members forming and joining the Association. Our initial project was obtaining trees for EPH Lions Park. EPH members carefully planned this project with expert consultation; Parks and Recreation approved the project at the end of the year, and we planted the trees in early March 2021. If awarded this grant, we plan to build on our track record by planning and executing a successful community-led tree planting program.

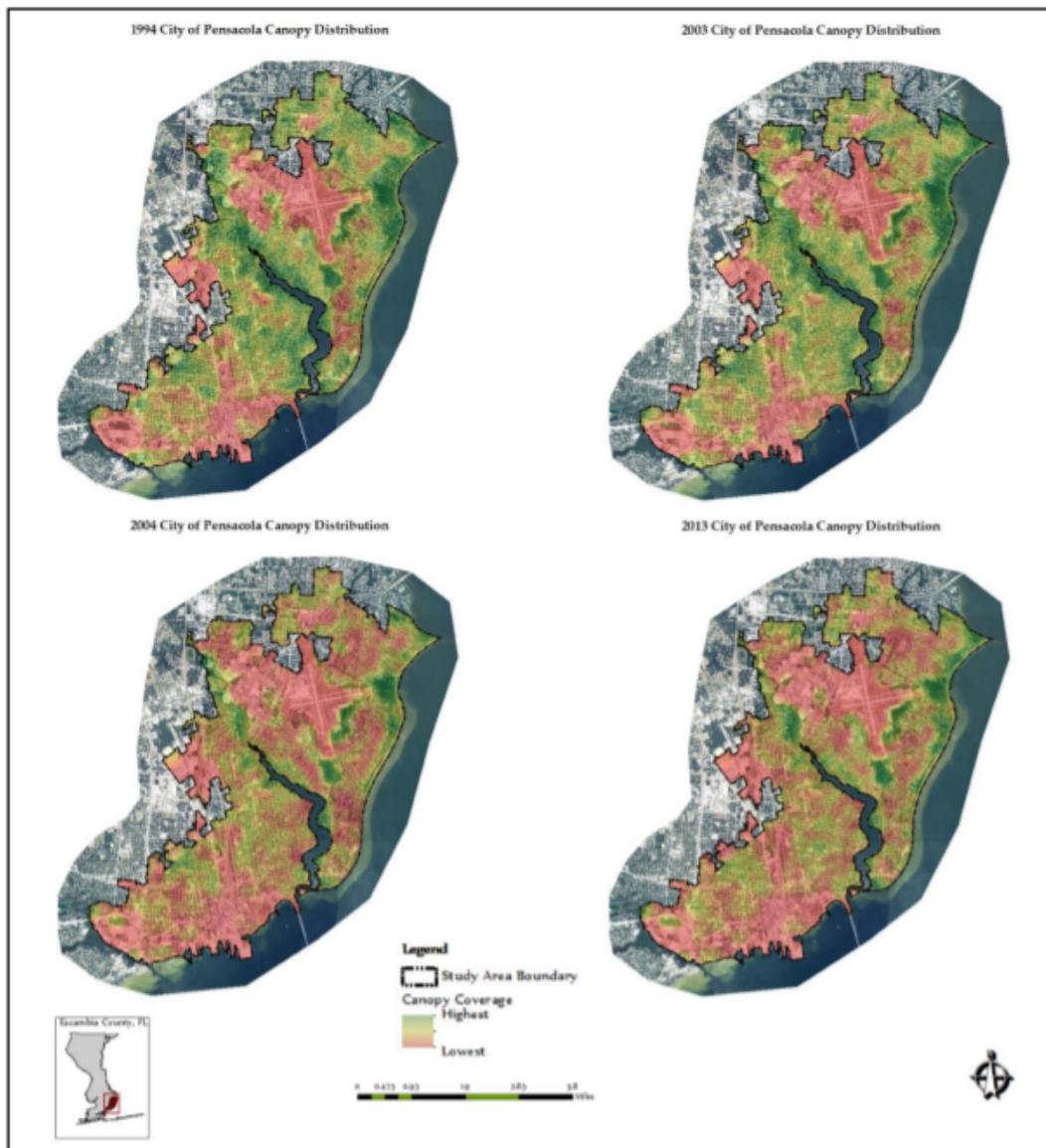
Figure 1: East Pensacola Heights Boundaries



## Literature Review

As you can see from the maps prepared for Pensacola's 2014 Urban Tree Canopy Study, East Pensacola Heights is not immune to the city-wide deforestation trend of the last thirty years:

Figure 2: Canopy Loss 1994-2014 as Shown in Figure 5 of the City of Pensacola's 2014 Tree Canopy Study



**Figure 5: Canopy Trend Model.** Detailed canopy trend modeling provides insight into the actual distribution of canopy within the study area. Four representative sample years of specific interest are presented (1994, 2003, 2004 & 2013), covering the nineteen year study window as well as a pre/post major hurricane event (Ivan) to be analyzed. Overall canopy coverage metrics for the sample years in this figure are: 1994 (40.2%), 2003(39.4%), 2004 (28.4%) and 2013 (29.3%).

Figure 3: Street Level Views of Canopy Loss

3006 E Lee St



April 2013



September 2021

E Gonzalez St in EPH



April 2013

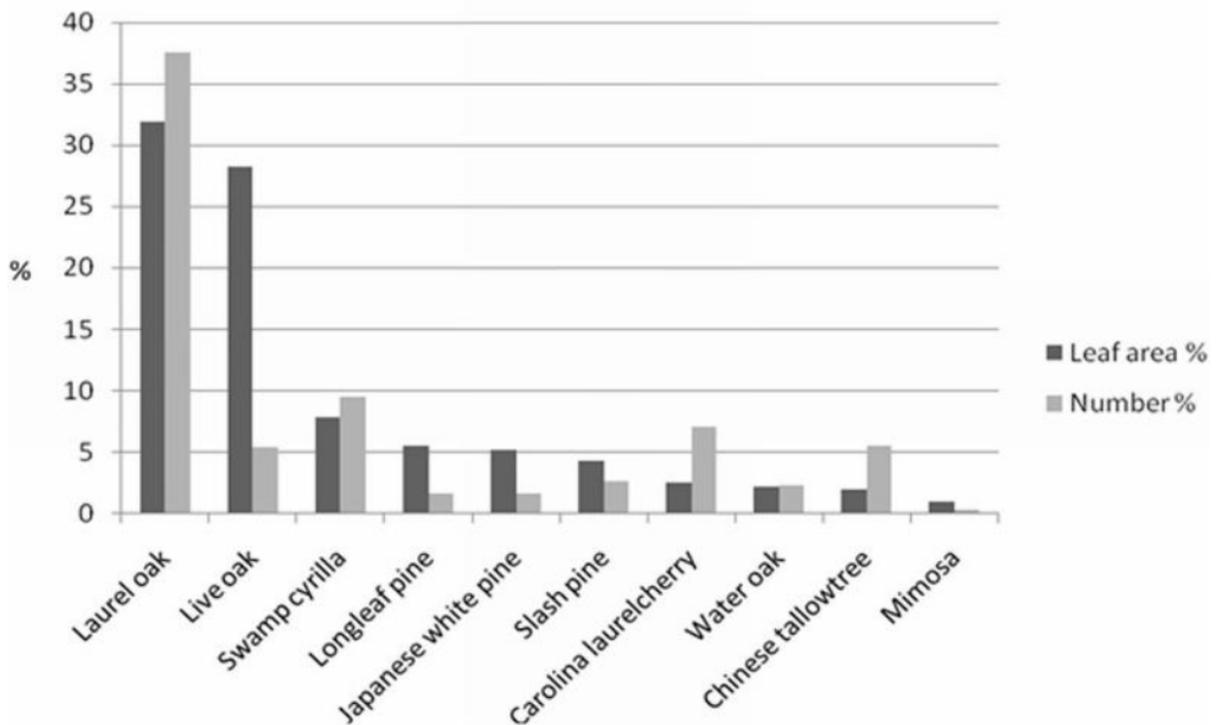


September 2021

Indeed, taking into account the damage from Hurricane Sally in September of 2020 and the lack of urban restoration efforts to our canopy, we have sustained substantial losses here since the 2014 study, including in the last year alone. Many of the trees in our neighborhood are the Laurel species of oak. They are also shorter-lived, prone to injury, and have less hurricane resistance than the heartier Live Oaks and Sand Live Oaks. Because EPH was planted with laurel oaks 80-100 years ago, these most prevalent canopy trees are reaching the end of their life expectancy. The street-level images below provide stark examples of canopy losses between 2013 and the present.

As the city’s 2014 study explains, “[p]lanting in Pensacola is especially important, with over 50% of Pensacola’s existing tree canopy comprised of short-lived and exotic trees including laurel oak, water oak, popcorn, and cherry laurel trees.” (Escobedo et al. 2009, 31). For this reason, the list of tree species discussed in our Tree Canopy Restoration Plan does not include Laurel or Water Oaks. Instead, it includes Southern Live Oak, Sand Live Oak, Overcup Oak, Red Maple, Bald Cypress, Longleaf Pine, and Loblolly Pine. These large canopy trees “provide the most environmental and economic value” (Escobedo et al. 2009, 5), and “[t]rees with a long life expectancy and high storm resiliency should be provided extra protection and maintenance. For example, the southern live oak has an average lifespan of 350 years and represents only 5 percent of existing trees in Pensacola. However, this historically significant tree is almost 30% of the overall canopy” (Escobedo et al., 2009 quoted in the 2014 Tree Canopy Study, 32).

Figure 3: Percentage of Trees and Leaf Area by Species (From Escobedo et al.



As the figure above illustrates, although Laurel Oaks comprise nearly 40 percent of Pensacola’s trees and live oaks comprise only five percent, the total leaf area provided by live oaks nearly equals that of laurel oaks, demonstrating the far greater benefits to the canopy, tree for tree, of live oaks over their smaller and shorter-lived cousins.

East Pensacola Heights’ placement in the southeast corner of Pensacola puts it at the heart of the Bayou Texar Watershed and makes it an excellent candidate for tree canopy restoration:

Figure 4: Map of the Bayou Texar Watershed



<https://scapestudio.mysocialpinpoint.com/restore-the-watershed>

The EPH neighborhood sits between Pensacola Bay and Bayou Texar. The 2014 Urban Tree study notes that the Bayou Texar Watershed, the largest of the four watersheds, experienced the most significant tree loss post-Hurricane Ivan. The study also concluded that there are adequate planting spaces afforded in this watershed. Still, with over 2,000 acres of potential planting area in this watershed, only 206 acres are on City-owned property. This project offers a unique opportunity to the City of Pensacola to have a community-based organization facilitate tree planting on the commercially and privately owned land on the East side of Bayou Texar. The trees planted in EPH will complement the City's watershed management plan by capturing stormwater runoff into Bayou Texar and Pensacola Bay.

Trees, forests, and other vegetation, according to the Center for Watershed Protection, and their associated soils are often referred to as green infrastructure when used to manage stormwater runoff instead of or in addition to pipes, pumps, storage chambers, or other hard infrastructure. Municipalities are beginning to realize the benefits of green infrastructure and are encouraging green infrastructure stormwater management practices. Green infrastructure practices make sense for our community because stormwater runoff into Bayou Texar has been an ongoing problem. Residents of East Pensacola Heights know that after a heavy rain or storm, we don't swim in the Bayou.

The chart below, of the frequency of health advisories in six local sites from students from the Marine Science Academy at Washington High School, courtesy of an article written by Sea Grant Extension officer Rick O'Connor in 2021:

Body of Water	Percent of Samples		Requiring a Health Advisory
	2018	2019	2020
Bayou Texar	44%	32%	49%
Bayou Chico	60%	56%	60%
Bayou Grande	47%	28%	47%
Sanders Beach	11%	9%	11%
Park West Pensacola Beach	0%	4%	0%
Casino Beach Pensacola Beach	0%	4%	0%

He points out that 2018 and 2020 had higher rates of rainfall on average, and in turn higher amounts of health advisories. Bringing in this green infrastructure through community tree restoration is a smart and relatively low-cost way to combat these advisories. We would rather be comfortable with our children swimming in the water any time, without checking health advisories or looking for open wounds.

Along with suggesting to plant larger trees as they provide “significantly greater value to the community (p. 37), the study ends with the suggestions that the city “[e]ncourage planting on residential property through education and street tree planting programs placing priority on neighborhoods willing to provide supplemental early tree care. Target and encourage ‘right tree right place’ plantings in areas with lower canopy densities” (p. 33).

As you will see in our Restoration Project Narrative, we will take into account the suggestions of the City’s 2014 Report and focus on educating our neighbors on not just the benefits of the Canopy Restoration Project, but research-based planting placement and care as well. The extension office will provide education to our team leaders, who will pass on their knowledge to residents receiving trees in helping them choose appropriate placement and providing adequate care. The long-term success of our project will promote the well-being of not just East Pensacola residents, but our whole community.

“The right tree, the right place” was a sentiment often echoed throughout urban forestry literature, and our association wants to ensure that residents who receive trees follow these guidelines. This will ensure not only the longevity of the trees and project, but can also increase energy efficiency in our neighborhood. In Escobedo et al Florida’s Urban Forests,” they contend “if deciduous trees, which lose their leaves in the fall, are planted on the south and east sides, the sun’s heat will reach the structure. Ultimately, homeowners determine how cool or warm they prefer the inside of their homes to be and tree placement effects may vary from person to person and home to home” (p. 5). Choosing the right placement for their trees could save homeowners on heating and cooling. Based on 2007 average retail on electricity, Escobedo et

It is estimated that \$306,000 a year was saved yearly in Southern Escambia County due to reduced air conditioning and heat use thanks to the existing urban canopy (p. 5). Our Education Component of the plan will focus on giving tree planters the information that they need to foster a healthy, long-lived and advantageous tree for generations of East Pensacola to enjoy.

## **Plan of Action**

### **Phase 1: Outreach**

1. East Pensacola Heights Neighborhood Association (EPHNA) will place flyers around EPH with information about the canopy restoration project and post them on our Facebook page. As of October 26, 2021, we have 522 followers. The flyers will provide contact information for residents who lack internet or email how to request a tree. We will proactively approach businesses, schools, and churches in the community as well as private homes.
2. We will print door hangers and conduct a door knock campaign focusing on our community north of East Cervantes and South of Hyde Park Road in our neighborhood. This section of the neighborhood has seen the most deforestation in the last few decades. Although other residents of EPH south of Cervantes will be eligible, that section will be a lower priority outreach as they have a more substantial established canopy.
3. Our social media outreach will use Facebook and Nextdoor. We will create a Facebook project page entitled "East Pensacola Heights Canopy Restoration Project." It will contain information about trees, updates on the project's progress, personal narratives, and requests for pictures to create a conversation about trees in our neighborhood and gain interest in our project. We will keep the community informed of the progress via Nextdoor, which is very popular in our neighborhood.

### **Phase 2: Enrollment**

All resident homeowners residing in East Pensacola Heights will be eligible for a street tree. Residents will fill out an application and be willing to sign a commitment of care contract. There will be a limit of four free trees per neighbor, but no limit upon purchased trees. Registration form will ask for the resident's name, address, contact information, number and type of trees requested.

### **Commitment to Care**

Before placing their order, residents must initial a checklist of agreements:

- tree will be planted in EPH
- tree will be planted on the designated planting day
- tree will be planted with appropriate spacing and away from power lines, out of easement, away from stumps and sidewalk, underground utilities, street signs
- will call 811 before they dig
- resident will water tree per recommendations based on tree caliper
- resident will NOT hit tree with lawnmower or weed eater as this will damage or kill the tree
- resident will utilize tree stakes provided as necessary

**Phase 3: Planting Day Saturday following Florida Arbor Day January 23, 2022**

East Pensacola Heights Neighborhood Association will have five teams of at least 3 people with one team leader assigned. Beth Bolles from the county extension office has kindly agreed to train each team leader so that trees are planted correctly and a barrier is established with mulch to ensure the longevity of the trees. Ms. Bolles will provide handouts that we will include with our tree that include a placement guide, watering guide, pruning guide based on tree type. This education component is key to making sure trees get a healthy start and continued support. Our association will provide compost from ECUA’s compost facility and we will provide pine straw to mulch the newly planted tree.

**Phase 4: One-Year Follow-up (January 2023)**

We will provide a survey a year after planting day to each resident that received a tree. The survey will request information about how many trees the resident planted, how they are doing, whether the commitment to care was followed. A site visit will follow to verify the information provided.

**Budget**

**City of Pensacola**

	Amount	Estimated Cost	Total Cost
Estimated Cost of One Native Tree	25	\$130.00	\$3,250.00
Pine Straw Mulch Bales	25	\$5.00	\$125.00
Five Gallon Food Grade Bucket	25	\$8.00	\$200.00
Watering Guidelines Sticker for 5-Gallon Bucket	25	\$4.00	\$100.00
		<b>Total</b>	<b>\$3,575.00</b>

**East Pensacola Heights Neighborhood Association**

ECUA Compost - 40 pounds	25	4.00	100.00
Door Hangers for Outreach	500	0.20	100.00
Flyers	200	0.10	100.00
*Volunteer Hours Planting Day (3 volunteers per tree x 1.5 hours )	112.5	28.00	3,150.00
Maintenance for 25 trees (one hour per week for one year)	54	28.00	1,512.00
		<b>Total</b>	<b>4,962.00</b>

\*Volunteer hours determined annually by Independent Sector. Basic labor to plant tree with favorable site conditions. Plant tree with up to 2 ft. diameter root ball with soil prep and double staking as necessary. Includes, tree planting training, equipment and material acquisition, area preparation and protection, setup and cleanup.

**Conclusion**

We re-established the East Pensacola Heights Neighborhood Association in March of 2020. The previous neighborhood association disbanded several years ago. Our first meeting was at the beginning of the Covid 19 pandemic, and it was our only in-person date. Despite this adversity, we all have come together on Zoom each month and successfully carried out an outreach effort that extended to every residence in East Pensacola Heights. We have grown from that initial meeting of twenty neighbors to forty-four members a year later (and growing). As mentioned above, we successfully got fifty trees planted in Lions Park. When the watering crew didn't show up in the first week, the president, vice president, and treasurer, along with several members, came out with hoses, attached them, and ran a line from our VP's house to ensure our trees survived. One of our members, a horticulturist, pointed out incorrectly planted trees. Neighbors came together on their hands and knees to correct the error and ensure that our trees had the best possible shot. In short, East Pensacola Heights Neighborhood Association is a group of enthusiastic, engaged neighbors who see our projects through. We can assure the grant committee that if given the opportunity, we will do everything in our power to promote the longevity of this project.



## References

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<https://www.cwp.org/reducing-stormwater-runoff/> accessed June 2021.

Escambia County Community & Environment Department Water Quality & Land Management Division. 2014. "City of Pensacola Urban Tree Study: A Comprehensive Analysis of the Pensacola Urban Tree Canopy."

Escobedo, Franciso, Sebastian Varela, Christina Staudhammer, Benjamin Thompson, Jimmie Jarratt, and Basil Iannone. 2019. "Pensacola and Southern Escambia County, Florida's Urban Forests." University of FLorida IFAS Extension.

Little, Jim. 2020. "SCAPE hired to develop plan to protect Carpenter Creek and Bayou Texar watershed." *Pensacola News Journal* (January 23).

O'Connor, Rick. 2021. "Healthy Estuaries: A Look at Water Quality in the Pensacola Bay System." <http://blogs.ifas.ufl.edu/escambiaco/2021/02/08/healthy-estuaries-a-look-at-water-quality-in-the-pensacola-bay-system/>

# EPH Canopy Restoration Project



# Who We Are

East Pensacola Heights Neighborhood Association is a 501c3 nonprofit created in the spirit of friendship and community with the purpose of promoting the interests and well-being of our neighborhood.

Our mission is to enhance the livability of the neighborhood, build community, and facilitate good communication between EPH and local government.

# Why We're Here Today

- ▶ Our neighborhood association is submitting a grant application to the City of Pensacola to fund our canopy restoration project.
- ▶ For our initial request we are respectfully asking for the funding to plant 25 native canopy or understory trees in our community. We would like to have the funding in place for a community planting day to celebrate Florida Arbor Day on January 22, 2022.

# 2014 City of Pensacola Tree Canopy Study Recommendations

## 7.0 Recommendations

### 7.1. Optimizing Tree Canopy through Planting

1. **Establish measurement of success and set planting priorities.** All plantings should follow American National Standard-ANSI A300 Standard Practices for Tree Care Operations.
2. **Planting the easy areas first.** The easy areas are public owned spaces needing no or limited modifications to the site including adequate soil type and volume for minimum inputs after establishment. The easier locations have the greater chance of successful trees at a lower price. (Urban, J. 2008).
3. **Expand street tree planting by designing space for trees.** Incorporate tree species, soil properties, soil volume and drainage in initial design. Tree size is directly related to planting space, no matter the tree species. Share rooting space in continuous planting strips like in a road median. Connect tree pits to lawn area to share planting space in commercial landscape.
4. **Encourage planting on residential property** through education and street tree planting programs placing priority on neighborhoods willing to provide supplemental early tree care. Target and encourage "right tree right place" plantings in areas with lower canopy densities (Figure 7).
5. **Maintain natural areas with appropriate native species** through restoration plantings and removal of exotic invasive plants.

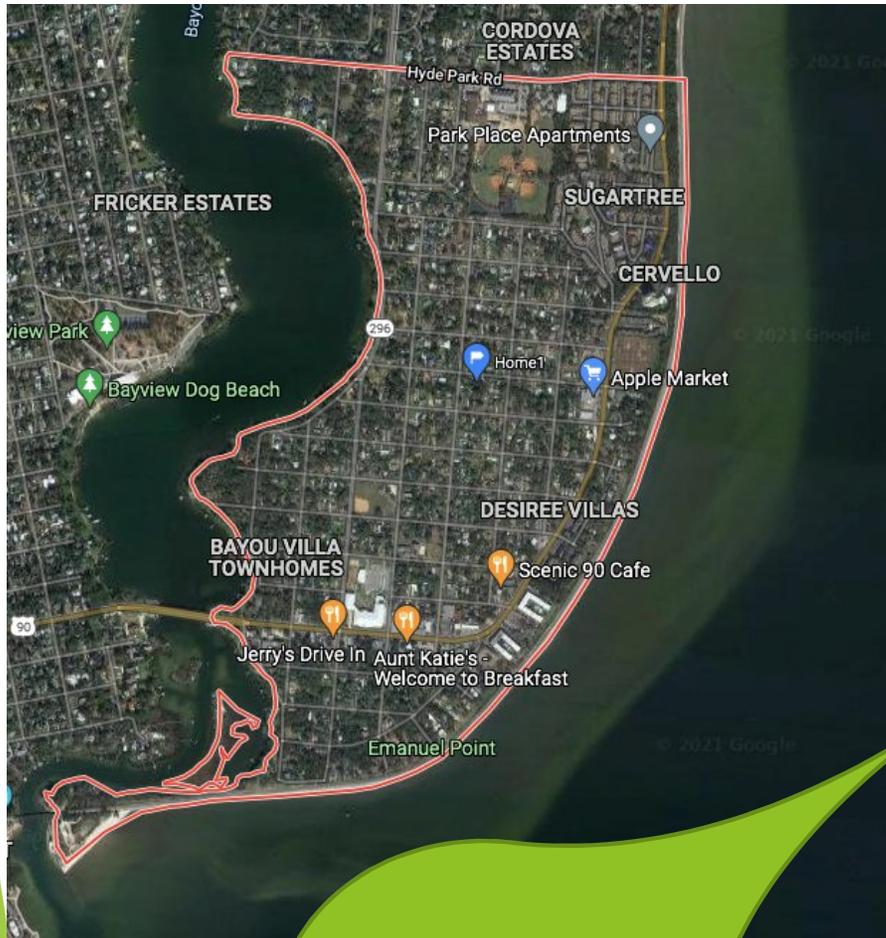
### 7.2 Optimizing Canopy through Maintenance and Species Diversity

6. **Conduct rotational tree assessments** addressing maintenance, planting and removal. All tree care maintenance should follow American National Standard ANSI A300 for tree care. Improving tree structure will increase wind resistance (Duryea et al. 2000) and reduce tree risk.
7. **Maintain a tree database** with tree inventory to promote tree structure improvements, mitigate risk and report maintenance concerns.
8. **Tree maintenance personnel** should have a reasonable understanding of indicators that determine risk factors affecting the health and structure of the trees.
9. **Selecting the right tree for space** and making the space right for the tree. Species should be selected by their ability to perform the desired functions and aesthetic contributions to the design. Long-term maintenance and resources for establishment period should be factored into design.
10. **Increase species diversity,** plant species that have longer average life spans and medium to high wind resistance. If possible work with local and regional nurseries to grow unique and desirable tree species not commercially available.
11. **Foster a tree education program** providing city residents with information about tree preservation policies, the benefits trees provide, and the importance of tree canopy.

## 7.1. Optimizing Tree Canopy through Planting

4. Encourage planting on residential property through education and street tree planting programs placing priority on neighborhoods willing to provide supplemental early tree care. Target and encourage "right tree right place" plantings in areas with lower canopy densities (Figure 7).

# Why East Pensacola Heights?



- ▶ We are surrounded by water on three sides making us an environmentally sensitive area and vital to the long-term maintenance of biological diversity, water quality, and soil health in the Bayou Texar Watershed.
- ▶ We have lost significant tree canopy over the years as documented by the 2014 Urban Tree Canopy Study.

And yes, this study is out-of-date. The problem is much worse now!

# The Case for Green Infrastructure

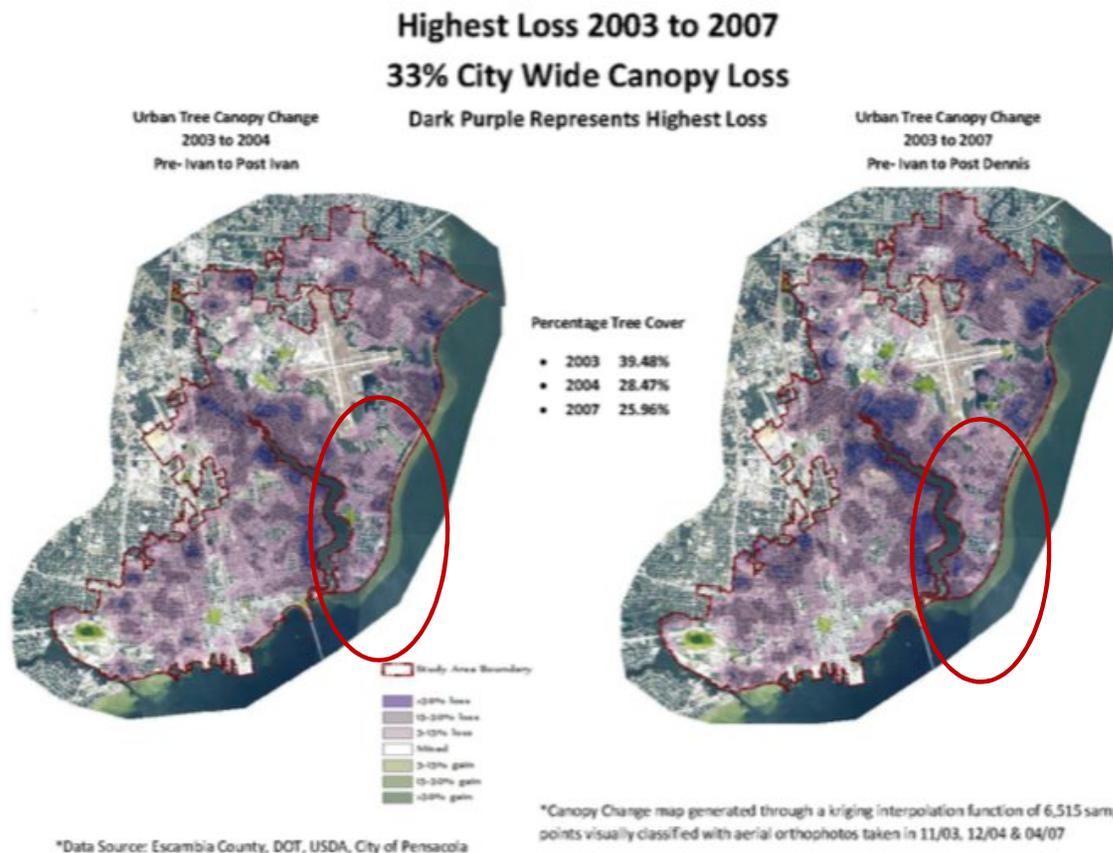
Percent of Samples Requiring a Health Advisory

Body of Water	2018	2019	2020
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Bayou Grande	47%	28%	47%
Sanders Beach	11%	9%	11%
Park West Pensacola Beach	0%	4%	0%
Casino Beach Pensacola Beach	0%	4%	0%

Critical Green Infrastructure Candidates

Higher than average rainfall

# Canopy Loss



Plenty of  
dark purple  
in our  
community!

# Canopy Loss

East Gonzalez Street  
EPH



April 2013



September 2021

# Canopy Loss

East Lee Street  
EPH



April 2013

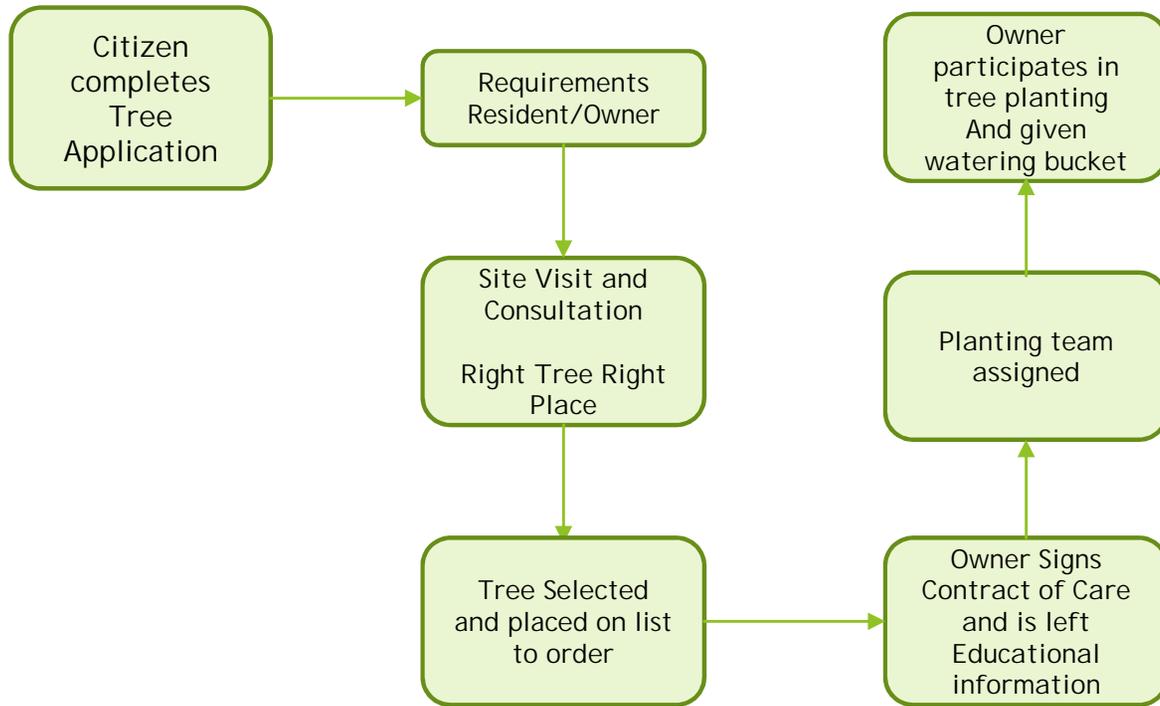


September 2021

# Why EPH Neighborhood Association?

- ▶ East Pensacola Heights Neighborhood Association reformed due to the interest in this community in restoring our tree canopy.
- ▶ We have a successful tree planting project under our belt.
- ▶ We are the third largest neighborhood association in Pensacola in terms of members and are growing our membership. Our community is made up of engaged civic-minded people.

# Application Process Draft



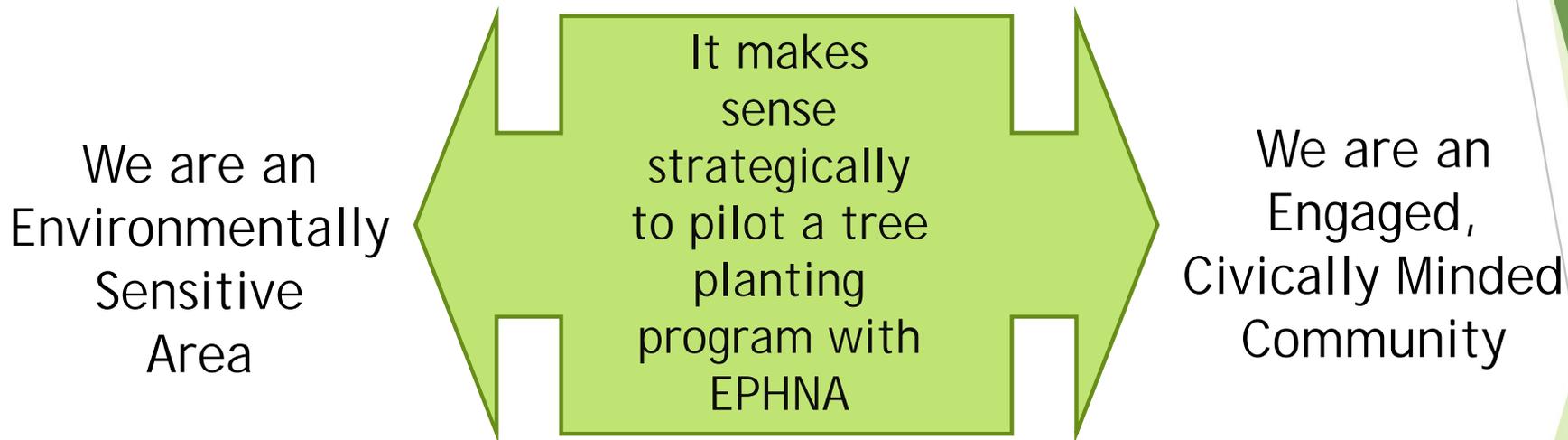
We are developing appropriate processes for project success!!

# Tree Programs in Florida Cities

- ▶ Jacksonville - Has an urban forestry department with three urban foresters and a city arborist, a free plant-a-tree program for city right-of-ways.
- ▶ Miami- Dade - Street Tree Program
- ▶ Tampa - Community Tree Planting Program is free and provides individuals and neighborhood associations with trees for planting on City land, greenways, and street right of ways. Established in 1997.
- ▶ Orlando - Robust street tree program with innovative marketing.
- ▶ Tallahassee - Adopt-A-Tree Program - Eligible homeowners living within the City limits may request up to 2 trees to be planted in the front yard within 100' of the centerline of the roadway and agree to keep each tree watered for one (1) year.

# Pilot Program Development

A great opportunity for the city to develop a program with a built in feed-back loop!



**Plus we are willing to do the work!**

# Our Project Partners

Mission driven collective action

- ▶ City of Orlando
  - ▶ Kathy Hall, Program Manager Street Tree Program Professional Advise
- ▶ Miami/Dade
  - ▶ Nikki Anderson, Program Manager Neat Street Program Professional Advise
- ▶ Emerald Coast Utility Authority
  - ▶ Larry Williams, District 3 Board Member Compost
- ▶ Boys Scouts of America Gulf Coast Council
  - ▶ Troup 425, Jim Zettler, Scout Master Volunteers
- ▶ University of Florida Extension Service
  - ▶ Beth Bolles, Extension Agent, Environmental Horticulture Train the trainer
- ▶ Florida Native Plant Society Long Leaf Pine Chapter
  - ▶ Duane Tant, Member and expert in the coastal sand plain ecosystem Professional Advise

# Native Trees Perform Better

Because native plants are adapted to local environmental conditions, they require far less water, **saving time, money**, and perhaps the most valuable natural resource, water. In addition to providing vital habitat for birds, many other species of wildlife benefits as well.

## Canopy Trees

- ▶ Southern Live Oak
- ▶ Overcup Oak
- ▶ Loblolly Pine
- ▶ Longleaf Pine
- ▶ Bald Cypress
- ▶ Riverbirch
- ▶ Summer Red Maple

## Understory Trees

- ▶ Dogwood
- ▶ Red Buckeye
- ▶ Red Bud
- ▶ Sassafras
- ▶ Persimmon

Society grows great when  
old men plant trees whose shade  
they know they shall never sit in.

- Greek Proverb

Thank you!



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00974

Environmental Advisory Board

11/4/2021

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### **ACTION ITEM**

**SPONSOR:** Kristin Bennett, Chair

### **SUBJECT:**

ANALYZING THE IMPACT OF LAWN MANAGEMENT PRACTICES OF CITY PROPERTY AND THE USE OF TWO-STROKE GAS LEAF BLOWERS ON GREENHOUSE GAS EMISSIONS IN THE CITY AND SUGGESTIONS FOR LOWERING ANY EMISSIONS ASSOCIATED WITH TWO-STROKE BLOWERS.

### **RECOMMENDATION:**

To be determined by motion and majority body approval.

### **SUMMARY:**

At their September 23, 2021, City Council meeting, the City Council referred to EAB a review and analysis of the impact of lawn management practices of city property and the use of two-stroke gas leaf blowers on greenhouse gas emissions in the city and suggestions for lowering any emissions associated with two-stroke blowers.

This item will provide the input and recommendations from the EAB to the City Council.

### **STAFF CONTACT:**

Don Kraher, Council Executive

### **ATTACHMENTS:**

- 1) Referral to EAB-GHG Emissions & two-stroke Gas Leaf Blowers (001)
- 2) CoP 2 Stroke Leaf Blowers

**ADD-ON LEGISLATIVE ACTION ITEM**

**SPONSOR:** City Council Member Sherri Myers

**SUBJECT:**

REFERRAL TO ENVIRONMENTAL ADVISORY BOARD – ENVIRONMENTAL IMPACT OF THE USE OF TWO-STROKE GAS LEAF BLOWERS ON GREENHOUSE GAS EMISSIONS

**RECOMMENDATION:**

That City Council refer to the Environmental Advisory Board for review and recommendation – Analyzing the impact of lawn management practices of city property and the use of two-stroke gas leaf blowers on greenhouse gas emissions in the city and suggestions for lowering any emissions associated with two-stroke blowers.

**HEARING REQUIRED:** No Hearing Required

**SUMMARY:**

The City of Pensacola maintains many acres of parks, athletic fields, right of ways, golf course and other green spaces. The maintenance often requires the use of leaf blowers that are typically two stroke gas blowers that are known to produce high volume of greenhouse emissions. The city has an interest in reducing greenhouse emissions to address climate change and to demonstrate good stewardship of the environment.

The city’s Environmental Advisory Board has the interest and expertise to assist the city in developing practical solutions to the use of two stroke gas leaf blowers

**PRIOR ACTION:**

None

**FUNDING:**

N/A

**FINANCIAL IMPACT:**

None

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

- 1) Noise Emissions from Lawn and Garden Equipment

**PRESENTATION:** No

## City of Pensacola use of 2 Stroke leaf blowers

### Acres mowed by:

	Parks & Recreation	Public Works
Staff	318 Acres	
Contractors	274 Acres	127 Acres
Total	592 Acres	127 Acres
<b>Grand Total</b>		<b>719 Acres</b>

This does not include ROW.

### Leaf blowers 2 stroke and electric:

	Parks & Recreation	Public Works
2 Stroke Blowers	12 STIHL	4
Electric	1	1

### Emissions:

	Parks & Recreation	Public Works
MTCO <sub>2</sub> e per year	2.496	0.312
% MTCO <sub>2</sub> e of City Operations	0.013%	0.007%

**Parks and Recreation** have 3 landscape crews that use gas blowers and a tree crew that uses gas blowers. The average run time per day is **2 hours in total**.

**Public Works** has 1 landscape crew that uses gas blowers, and it runs an average of **15 minutes per day**.



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00966

Environmental Advisory Board

11/4/2021

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### **DISCUSSION ITEM**

**SPONSOR:** Kristin Bennett, Chair

**SUBJECT:**

REVIEW OF SECTION 12-6-1 TO 12-6-6 OF THE TREE AND LANDSCAPE ORDINANCE

**SUMMARY:**

A comprehensive review of the Tree and Landscape Ordinance was referred to the EAB. The EAB is in the process of conducting that review.

This item allows for suggested modifications to the currently existing language to be considered by the Board as a whole.

**PRIOR ACTION:**

July 15, 2021 - City Council referred to EAB a comprehensive review of the Tree and Landscape Ordinance

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

1) (to be distributed)

**PRESENTATION:** No



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00975

Environmental Advisory Board

11/4/2021

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### **DISCUSSION ITEM**

**SPONSOR:** Kyle Kopytchak, Board Member

**SUBJECT:**

TREE ORDINANCES AFTER SECTION 163.045; CONTROVERSIES AND STRATEGIES - POWERPOINT

**SUMMARY:**

The PowerPoint being referenced was made in response to a recently (at the time) passed statute and some of the controversies and challenges being viewed across the state.

It does have a quasi-tie in to litigation the City is currently involved in which is under appeal.

I would caution the board about speaking to an issue the City is currently involved in, until such time as that issue has reached its legal conclusion.

**PRIOR ACTION:**

None

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

1) Tree Ordinances after Section 163.045; controversies and strategies

**PRESENTATION:** No



TREE ORDINANCES  
AFTER SECTION 163.045:  
CONTROVERSIES AND  
STRATEGIES

*Heather F. Lindsay*  
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*City of Pensacola, Florida*  
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850-435-1614



WHAT TO DO ABOUT DANGEROUS TREES?



# Tallahassee to the Rescue:

*Saving property owners from  
arbitrary local governments*

# SECTION 163.045, Florida Statutes (2019)

(1) A local government may not require a notice, application, approval, permit, fee, or mitigation for the pruning, trimming, or removal of a tree on residential property if the property owner obtains documentation from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect that the tree presents a danger to persons or property.

(2) A local government may not require a property owner to replant a tree that was pruned, trimmed, or removed in accordance with this section.

(3) This section does not apply to the exercise of specifically delegated authority for mangrove protection pursuant to ss. 403.9321-403.9333

As George Carlin said, “rhetoric paints with a broad brush.”

- No definitions in the statute:
  - Residential*
  - Danger*
  - Documentation*
  - Tree*
- No language regarding implementing ordinances or existing definitions in local laws
- No understanding of the disruption caused by eliminating notice
- No acknowledgment of the consequences of a failure to mitigate



Has the Legislature authorized the clear-cutting of the State of Florida?

## Tree Regulations – Safer at Home

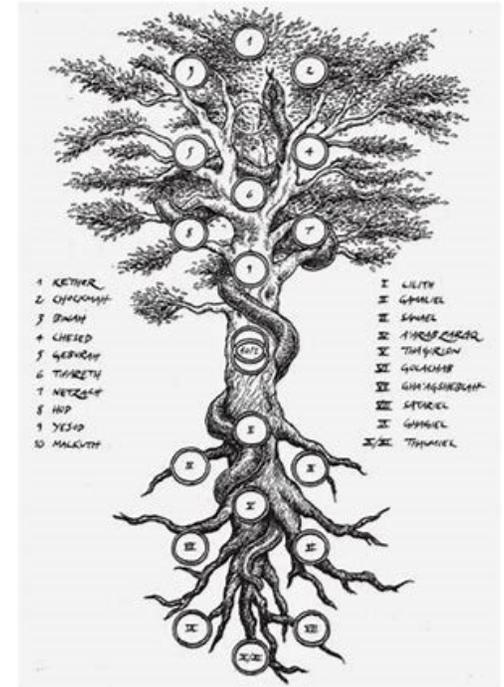
- Other than protecting mangroves, the legislation lacks specificity
- No recognition of heritage trees in spite of local standards preserving them
- No recognition of delegation of police power to private parties
- Legislation punishes local governments and their residents by treating every local government as if it has been arbitrary and abusive, but legitimate concerns were isolated
- Local issues are best resolved locally – one size does not fit all



What's so special about trees?

# Benefits of Trees

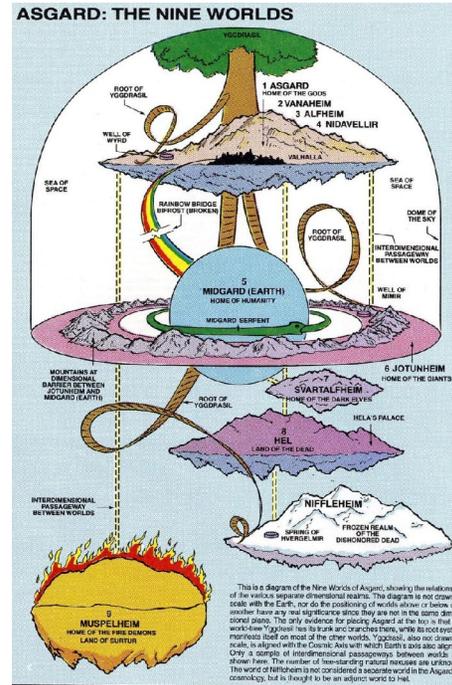
- Air quality
- Storm protection
- Stormwater storage and treatment
- Soil stabilization and strengthening
- Protection from heat, energy savings
- Beautification, privacy, enhanced property value



# Trees Have Intrinsic Value to Many



Trees figure  
in sacred  
traditions  
worldwide



Throughout History, In Every Culture

## Any Surprise That Controversies Abound?

- City of Pensacola v. Larry and Ellen Vickery (on appeal)
- S Tile & Marble Inc. v. City of Tampa; Miller & Sons, LLC v. City of Tampa (on appeal)
- Temple Terrace (code enforcement officer found no violation)
- Broward County v. Tom Chapman and Sherlock Tree Service (final order issued against the county)
- Village of Pinecrest (Village prevailed)
- Dania Beach (developing)





The City of Tampa pursued code enforcement violations after apparently healthy trees were destroyed on commercial property

Hefty fines were imposed

appeals filed in November 2020

<https://www.tampabay.com/news/tampa/2020/11/27/tampa-tree-cutting-spat-headed-to-an-appeals-court/>

## Temple Terrace – No Violation

- The arborist shifted his story (as happened in Vickery)
- The tree at issue had been determined healthy by the city arborist
- The arborist contradicted the city arborist after looking at photographs, with no inspection at the site
- Arborist admitted at hearing that he could not view the tree except from sixty feet away late in the day, and the tree was merely a “danger” to a decorative wall that was not attached to the house
- The property owner did not want to have to remove branches and leaves from his roof
- Tree service counsel argued that the city has no authority to question the accuracy of the opinion; however, the tree was not correctly identified by species or by location or size



# Broward County: no violation, no appeal

- The matter arose during removal, as inspector responded to a complaint
- Documentation generally claimed trees (misidentified) were a danger, noted driveway damage; no hazard was evaluated
- Stipulation property was residential
- Substantive corrections were made after the fact to the “documentation” in an effort to cure the asserted violation
- Hearing Examiner expressed the statute is “vague, ambiguous, [and] overbroad”
- Nonetheless, Hearing Examiner determined statute had to be applied in favor of the property owner and tree cutting company in spite of these concerns
- Determination not to appeal to avoid risk of adverse ruling



## Village of Pinecrest – no statutory exemption

- Property owner failed to provide documentation dated or prepared prior to removal of the trees
- Property owner submitted “documentation” from a medical doctor regarding allergies of the owner and his family, from the owner of a landscaping company, and finally from a certified arborist
- The arborist stated merely that he looked at the property (not visited) and that he agreed with the doctor the trees were dangerous
- The arborist seemingly failed to make an independent determination the trees were dangerous and failed to appear at the hearing to present evidence
- Further, a development order with a landscape buffer to mitigate impacts of development was akin to a contract and could not be impaired by the statutory exemption\*

\**Standard Distributing Co. v. Fla. Dept. of Business Regulation*, 473 So. 2d 216 (Fla. 1<sup>st</sup> DCA 1985)





## Tree Removal Prompts Consideration of Overlay Ordinance

**Dania Beach Residents Object to  
Tree Removal**

<https://www.local10.com/news/local/2020/12/02/mayor-gets-involved-as-residents-of-dania-beach-neighborhood-fight-over-removal-of-old-oak-trees/>

## Strategies

- Evaluate how the statute fits within the applicable local standards, including multi-family landscape plans and development orders
- Consider a preservation overlay with narrowly tailored exemption consistent with local community standards
- Define what documentation is acceptable (TRAQ)
- Hold professionals accountable for documentation
- Clarify that residential property owners with valid documentation have a complete defense to any code enforcement action
- Ensure code enforcement officers educated

# Code Amendments

- Define residential to mean currently occupied
- Define documentation to include the certifying person's identity and qualifications (the ISA license check can be done with just the name)
- Require documentation to be no less than a completed Basic Tree Risk Assessment Form (disciplined inquiry, mitigation options are part of the assessment) \*
- Most tree regulations already include a definition for hazardous or diseased trees, but the legislature's use of "danger" is not necessarily communicating the same idea to the average person; thus, clarify to define "danger" consistent with imminent or probable risk of failure which is likely to cause significant or severe consequences
- Clarify the residential property owner is subject to code enforcement action without this documentation being prepared prior to any action being taken with regard to the tree(s)

\*[https://www.isa-arbor.com/education/resources/BasicTreeRiskAssessmentForm\\_Fillable\\_FirstEdition.pdf](https://www.isa-arbor.com/education/resources/BasicTreeRiskAssessmentForm_Fillable_FirstEdition.pdf)

## Lobbying for Amendments

(1) A local government may not require an notice, application, approval, permit, fee, or mitigation for the pruning, trimming, or removal of a tree on developed, occupied, single-family residential property if the property owner obtains and submits to the local government for review documentation a Tree Risk Assessment from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect that the tree presents a danger to persons or property has an extreme or high risk rating prior to pruning, trimming or removal.

(2) A local government may not require a property owner to replant a tree that was pruned, trimmed, or removed in accordance with this section, except to meet landscape plan minimum standards.

(3) This section does not apply to the exercise of specifically delegated authority for mangrove protection pursuant to ss. 403.9321-403.9333, or to healthy trees with preservation designations pursuant to local ordinance.



**Representative  
Sabatini's  
Memorandum**

- On August 8, 2019, Representative Sabatini stated that “it is my opinion that the Florida Legislature has expressly preempted local government ... [and] ... any local government that seeks to enforce its local tree ordinances in this situation likely runs afoul” of Section 163.045
- Representative Sabatini also referenced the new law concerning attorney fees and costs being awarded to a prevailing party where a local government adopts or enforces an expressly preempted local ordinance.



**Speaker  
Oliva's  
Memorandum**

- In January 2020, Speaker Oliva sent a memorandum to licensed professionals with a request that they contact his office if they became aware of any local government “restricting the free exercise of property owners’ rights”
- Tone of memorandum reflects belief that local governments threaten sanctions or levy fines against arborists and landscape architects for engaging in their fields of expertise
- Speaker Oliva also in January 2020 warned local governments that the House would protect the rights of property owners against illegal governmental actions

## Dillon's Rule

Municipalities possess only those powers expressly granted by the state legislature, those fairly implied from the powers expressly granted, and those essential to the declared purposes of the corporation. If reasonable doubt exists as to whether a municipality can exercise a certain power, the doubt is, as a matter of law, resolved against the municipality.

## Home Rule

Every municipality in this state has the authority to conduct municipal government, or perform municipal functions, and render municipal services. The only limitation on that power is that it must be exercised for a valid "municipal purpose." It would follow that municipalities are not dependent upon the state legislature for further authorization. Legislative statutes are relevant only to determine limitations of authority.

Article VII, Section 2, Fla. Const.

## Only Conflict Preemption Theoretically Applies

- A municipality may legislate concurrently on any matter not preempted to the state
- Intrusions on home rule are construed narrowly
- Express preemption requires explicit language reflecting intent to occupy the field
- Implied preemption applies only when a legislative scheme is so pervasive that evidence of intent to preempt can be found
- Conflict preemption occurs if enforcement of the local ordinance prevents compliance with the state statute or compliance with the local ordinance is a violation of the state statute

*Tallahassee Memorial Regional Med. Center, Inc. v. Tallahassee Med. Center, Inc.*, 681 So. 2d 826 (Fla. 1<sup>st</sup> DCA 1996)

*Phantom of Clearwater v. Pinellas County*, 894 So. 2d 1011 (Fla. 2d DCA 2005)

# Municipal Legislative Power

Pursuant to section 166.02(4), Florida Statutes,

The provisions of this section shall be so construed as to secure for municipalities the broad exercise of home rule powers granted by the constitution. It is the further intent of the Legislature to extend to municipalities the exercise of powers for municipal governmental , corporate, or proprietary purposes not expressly prohibited by the constitution, general or special law, or county charter and to remove any limitations, judicially imposed or otherwise, on the exercise of home rule powers other than those so expressly prohibited.

## Community-based Strategies

Accountability of ISA Florida Chapter, which committed to a public awareness campaign to teach people that trees are not inherently dangerous and to education on ethics of its certified arborists:

<https://files.constantcontact.com/962ea051201/bce1a8c3-44fd-4f93-9b5a-81cb25f3fec5.pdf> (noting that the Florida Legislature “with support from the insurance and construction industries,” in enacting Section 163.045, was placing more trust in this private organization than in Florida’s local governments)

ISA has produced a guide to creating preservation ordinances:

<https://www.isa-arbor.com/Portals/0/Assets/PDF/Certification/Tree-Ordinance-Guidelines.pdf>

Locating significant trees in your community for historical preservation purposes could raise awareness of the value of trees: <https://www.americanforests.org/get-involved/americas-biggest-trees/>

Each community will vary on how to value trees, but evidence supports valuing them based on environmental benefits



# Final Thoughts

- Don't overlook the impact of 5G: with the loss of control of public rights-of-way, protecting trees is challenged by more than Section 163.045
- Legislators are less inclined to respect Home Rule principles
- Private parties are being given more influence over processes that involve public safety and balancing competing interests among stakeholders
- Local governments must persist in advocating for retaining flexibility to address local concerns



## Acknowledgments

I am grateful for the contributions of so many during the litigation of the *Vickery* matter and in preparing this presentation, including

Susan Woolf, City Attorney, City of Pensacola

William Wells, Deputy City Attorney, City of Pensacola

Vanessa Moore, Assistant City Attorney, City of Pensacola

Jose Arango, Esq., & Chad Friedman, Esq., of Weiss Serota, *et al.*

Eve Boutsis, Assistant City Attorney, City of Dania Beach

Pamela Cichon, City Attorney, City of Temple Terrace

Michael Owens, Senior Assistant County Attorney, Broward County

Ursula Richardson, Chief Assistant City Attorney, City of Tampa



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00949

Environmental Advisory Board

11/4/2021

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### **DISCUSSION ITEM**

**SPONSOR:** Blase Butts, Board Member

**SUBJECT:**

SINGLE USE PRODUCTS ON PUBLIC PROPERTY

**SUMMARY:**

This item seeks to discuss the prohibition of single use products on public property along with any potential recommendation the board wishes to send to City Council.

**PRIOR ACTION:**

January 17, 2019 - City Council pass item to reduce and remove Styrofoam, plastic bottles and other non-environmental friendly items from use within City Hall.

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

- 1) Reduction-Removal of Styrofoam, plastic bottles and non-environmentally friendly items from city hall - Legislative Action Item
- 2) Single-Use Products Policy briefing sheet\_FINAL
- 3) Single-use products policy\_FINAL
- 4) Green Works Foam\_Bags\_Straws
- 5) Plastic Products Ban in Other Cities
- 6) Webstaurant price comparison
- 7) Single Use Info

**PRESENTATION:** No

**LEGISLATIVE ACTION ITEM**

**SPONSOR:** City Council Member Ann Hill  
City Council Member Sherri Myers

**SUBJECT:**

REDUCTION AND REMOVAL OF STYROFOAM, PLASTIC BOTTLES AND OTHER NON-ENVIROMENTALLY FRIENDLY ITEMS FROM USE WITHIN CITY HALL

**RECOMMENDATION:**

That City Council work with the Office of the Mayor in establishing a policy for the reduction and removal of Styrofoam cups, plastic bottles and other non-environmentally friendly items from use within City Hall. Recommendation is from the Environmental Advisory Board.

**HEARING REQUIRED:** No Hearing Required

**SUMMARY:**

In an effort to reduce the use of non-environmentally friendly products such as Styrofoam, plastic bottles and plastic straws, the Environmental Advisory Board brought forth this recommendation.

While an effort is in place currently to facilitate this recommendation, this item seeks to officially make it a policy of the City to do so.

Along with this, within the reduction of the use of plastic bottles (i.e. water bottles), is a forward view of replacing water fountains (at least some) with refilling stations.

**PRIOR ACTION:**

December 6, 2018 – Environmental Advisory Board approved the forwarding of this recommendation

**FUNDING:**

N/A

**FINANCIAL IMPACT:**

Cost reduction of certain products vs. cost of replacement products.

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

- 1) None

**PRESENTATION:** No



## Single-Use Products on Public Property

### Policy Briefing Sheet

#### Objective:

To further advance the environmental sustainability of Orlando by reducing the use of non-biodegradable polystyrene products and single-use plastics in the City and encouraging the use of recyclable, reusable, or compostable alternatives on City-owned property, venues, parks, and/or affiliates events.

#### Purpose:

To provide and maintain for the citizens and visitors of the City a healthy and aesthetically-pleasing experience, while simultaneously advancing the City's sustainability goals and contributing to its long-term economic vitality, by eliminating the use of these non-biodegradable and environmentally deleterious products into surrounding ecosystems and landfills.

#### Background:

- Green Works Orlando mission: “Transform Orlando into the most environmentally-friendly, socially inclusive, and economically vibrant City in America.” - Orlando Mayor Buddy Dyer
- In 2017, Mayor Dyer asked Chris Castro to explore a policy to eliminate polystyrene and single-use products from city-owned property.
- 2017 Green Works Municipal Sustainability Action Plan
  - Goal #7: 100% of municipal materials meet environmentally-preferential purchasing (EPP) and disposal standards by 2030
- 2018 Green Works Community Sustainability Action Plan
  - Strategy #25: Implement a Polystyrene, Plastic Bag and Plastic Straw Ban for All City Facilities, Parks and Affiliated Events

#### Issues with polystyrene and single-use plastic items:

- Made of fossil fuels and synthetic chemicals, contributing to air pollution and climate change.
- Non-biodegradable products that add waste to our landfills
- Put wildlife at risk if accidentally mistaken for food
- Contaminate our stormwater ponds, lakes, parks, and nearby marine environment
  - Plastic Bags
    - 102 billion plastic bags used annually in the US; 12 million barrels of oil<sup>1</sup>
    - 113 countries + 127 cities in the U.S. have bag bans or charge fee for plastic bags<sup>2</sup>

<sup>1</sup> Waste Management statistics: <http://www.wmnorthwest.com/guidelines/plasticvspaper.htm>

<sup>2</sup> Center for Biological Diversity: [https://www.biologicaldiversity.org/programs/population\\_and\\_sustainability/sustainability/plastic\\_bag\\_facts.html](https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/plastic_bag_facts.html)



- Plastic Straws<sup>3</sup>
  - America uses 500 million drinking straws every day
  - 1/10 of the marine debris around the World
- Expanded Polystyrene (EPS aka Styrofoam)<sup>4</sup>
  - 25 billion Styrofoam coffee cups every year
  - 3 million tons of EPS are produced each year

### Key reasons for moving this policy forward:

1. Expanded polystyrene (aka styrofoam), plastic bags, and plastic straws are **non-biodegradable products** that are made from fossil fuels and contributing to environmental degradation. These items are often used for a few minutes and discarded, only to be around in our environment for hundreds of years for plastic, and in the case of expanded polystyrene, over 1 million years before they decompose. They are simply unsustainable.
2. The current recycling markets in Orlando and across America is having challenges with **contamination in recycling**, products that people are putting into the bin because they wish it can be recycled. The three top items found to contaminate recycling streams are expanded polystyrene, plastic bags, and plastic straws. As such, to improve our recycling diversion rates and minimize our contamination in recycling, we are addressing the root of the problem by moving away from using those contaminants where the City has control.
3. The **main litter items** found in our parks, lakes, rivers, and oceans are expanded polystyrene, plastic bags, and plastic straws. They are hazardous for wildlife as they get confused as food, they make these natural places unpleasant aesthetically, they affect water quality, and they are beginning to impact human health with the onset of bioaccumulation of microplastics.

### Current State pre-emptions regarding plastic bags, polystyrene, and plastic straws overview:

- FL 500.90 - Regulation of polystyrene products.
- FL 403.7033 - Departmental analysis of particular recyclable materials regarding plastic bags
- SB 588/ HB 603 – Remove regulatory powers from local government for plastic straws  
(Passed Spring 2019 legislature. Vetoed by Governor Ron DeSantis)

### Community outreach & stakeholder engagement:

- Executive Offices (Mayor, CAO, City Attorney)
- OCNR
- OFB / Procurement
- Real Estate (4Rivers, Relax Grill, Mesa21, Super Rico, Tropical Smoothie)
- FPR
- Orlando Venues

<sup>3</sup> New York Times, <https://www.nytimes.com/2018/07/09/business/starbucks-plastic-straws.html?module=inline>

<sup>4</sup> Earth Day Network, "How Much Disposable Plastic?": <https://www.earthday.org/2018/04/18/fact-sheet-how-much-disposable-plastic-we-use/>



- EDV
- DDB / CRA
- Permitting
- OPD

#### **Additional Florida cities with Polystyrene, Bag, and/or Straw policies**

- Polystyrene ban (5): Miami-Dade County, Coral Gables, Gainesville, Hollywood, St. Petersburg
- Plastic Bag ban (2): Coral Gables and Gainesville
- Plastic Straw ban (10): St. Petersburg, Miami Beach, Surfside, Sanibel, Marco Island, Hallandale Beach, Ft. Myers, Deerfield Beach, Dania Beach, Hollywood
- No city or County in Florida has passed internal policy to eliminate all three items

#### **Summary of Recommended policy, 137.2:**

- Define “Single-use products” as food service related products that are designed to be used only once in the same form and then disposed of or destroyed. Single-use products include, but not limited to, polystyrene products, plastic straws, and plastic bags.
- Recommended policy would mean “single-use products”, as defined above, may not be sold or disbursed on City property or used by City contractors, permittees, or licensees, unless authorized by the Chief Administrative Officer, Chief Financial Officer, Chief Venue Officer, or designee.
- Policy would require the use of compostable materials, biodegradable materials, reusable materials, or recyclable materials (plastic #1 and #2) as alternatives.
- In recognition of the needs of customers with disabilities, plastic straws may be provided upon request.
- Policy would affect all City-owned facilities, venues, parks, and affiliated events (18A permits).
- Applicable contracts, agreements, leases, permits, and licenses should include a notice to contractors, permittees, and licensees that single-use products are not permitted on City property. The use of recyclable, reusable, biodegradable, and compostable alternatives is encouraged.
- This policy only applies to new contracts solicited or entered into, and permits granted, after its effective date.



- Exemptions:
  - Single-use products used for pre-packaged food that have been filled and sealed prior to receipt by the City contractor or permittee, or for packaging unwrapped food items, such as raw meat, poultry and fish.
  - Single-use products used by a City permittee for events or facility rentals attended by 100 people or less.
- Effective date: October 1<sup>st</sup>, 2019

### **Enforcement**

- The City may revoke or cancel any permit for non-compliance with this policy, and may use past non-compliance as grounds for not renewing or re-issuing a permit.
- Where applicable under the terms of a contract, the City may pursue appropriate contractual remedies for non-compliance with this policy, including termination and/or preclusion or debarment from future City contracts.
- The City may hold the “damage deposit” for any park event or 18A permitted event following non-compliance with this policy.
- Events or facility rentals by 100 people or less will be encouraged to comply by receiving the “Parks Rules” which will include this policy. No enforcement will be needed as these events are exempt.

### **Financial impact:**

- Alternative products range from cost neutral to \$0.06/unit in additional cost, depending on the alternative being selected.
- See matrix of items for reference

### **Timeline:**

- **Nov 2018 – April 2019:** Stakeholder engagement
- **March 2019 – May 2019:** Policy language development and stakeholder feedback
- **May 28<sup>th</sup>, 2019:** Policy recommendation to Operations Committee for approval
- **June 3<sup>rd</sup>, 2019:** City Council resolution
- **October 1<sup>st</sup>, 2019:** Policy begins

## **137.2 SUBJECT: SINGLE-USE PRODUCTS ON CITY PROPERTY**

### **:1 OBJECTIVE:**

To advance the environmental sustainability of Orlando by reducing the use of polystyrene products and single-use plastics on City property and encouraging biodegradable, compostable, recyclable, and reusable alternatives.

### **:2 AUTHORITY:**

This policy was adopted by City Council on June 3, 2019.

### **:3 DIRECTION:**

The Director of Sustainability, as an appointed official, serves at the pleasure of the Mayor and is supervised by and receives direction from the Chief Administrative Officer.

### **:4 METHOD OF OPERATION:**

#### **A. Definitions.**

1. "Biodegradable materials" are manufactured products made entirely from natural materials, like uncoated paper or plant fibers, that will undergo a natural process of deterioration.
2. "City contractor" is a food service related contractor, vendor, concessionaire, or lessee of the City.
3. "City permittee" is any person or entity issued a special event permit or temporary use permit by the City for a special event or temporary use on City property.
4. "City property" includes land or facilities owned, operated or managed by the City, and public rights-of-way within the jurisdictional boundaries of the City of Orlando.
5. "Compostable materials" are manufactured products made from paper, wood, or vegetable-derived plastics.
6. "Plastic" is a synthetic material derived from petroleum or a biologically-based source.
7. "Plastic bag" is a bag provided to a customer, typically at the point of sale or distribution, for the purpose of transporting food service related items, and is made predominantly of nonwoven, flexible plastic that is less than 10 mils thick.

8. "Plastic straw" is a tube intended for transferring a beverage from its container to the mouth of the drinker, or for mixing a beverage in its container, which is made predominantly of plastic.
9. "Polystyrene," commonly known as "Styrofoam," is a synthetic polymer made from the styrene monomer.
10. "Polystyrene products" are disposable food service articles including protective packaging, containers, cups and lids.
11. "Recyclable materials" are raw or processed materials that can be recovered or diverted from the nonhazardous waste stream to be reused or repurposed into another item which may otherwise be produced using raw or virgin materials. For purposes of this policy, recyclable materials include glass, aluminum, or plastics made from polyethylene terephthalate (PET, #1) or high-density polyethylene (HDPE, #2).
12. "Reusable materials" are manufactured products that are durable, washable items, often not discarded and can be used multiple times.
13. "Single-use products" are food service related products that are designed to be used only once in the same form and then disposed of or destroyed. For purposes of this policy, single-use products are polystyrene products, plastic straws, and plastic bags, as defined herein.

B. Policy.

Single-use products may not be sold or disbursed on City property by City contractors or permittees, unless authorized by the Chief Administrative Officer, Chief Financial Officer, Chief Venues Officer, or designee. The use of biodegradable, compostable, recyclable, and reusable materials is encouraged.

In recognition of the needs of customers with disabilities, plastic straws may be provided upon request.

C. General Guidelines.

Applicable contracts and permits shall include a provision that single-use products may not be sold or disbursed on City property as provided in this policy.

The City may revoke or cancel any permit for non-compliance with this policy, and may use past non-compliance as grounds for not renewing or re-issuing a permit. Where applicable under the terms of a contract, the City may pursue appropriate contractual remedies for non-compliance with this policy,

including termination and/or preclusion or debarment from future City contracts.

This policy only applies to new contracts solicited or entered into, and permits granted, after its effective date.

D. Exemptions.

1. Single-use products used for pre-packaged food that have been filled and sealed prior to receipt by the City contractor or permittee, or for packaging unwrapped food items, such as raw meat, poultry and fish.
2. Single-use products used by a City permittee for events or facility rentals attended by 100 people or less.

:5 FORMS:

None.

:6 COMMITTEE RESPONSIBILITIES:

None.

:7 REFERENCE:

Chapter 15, Orlando City Code; Green Works Orlando Community Action Plan; Green Works Municipal Operations Sustainability Plan.

:8 EFFECTIVE DATE:

This policy is effective beginning October 1, 2019.



# GREEN WORKS ORLANDO



# Mission Statement:

Transform Orlando into the most environmentally-friendly, socially inclusive, and economically vibrant City in America.



Environment



Resiliency



Economy

Equity





# Municipal Sustainability Action Plan 2017

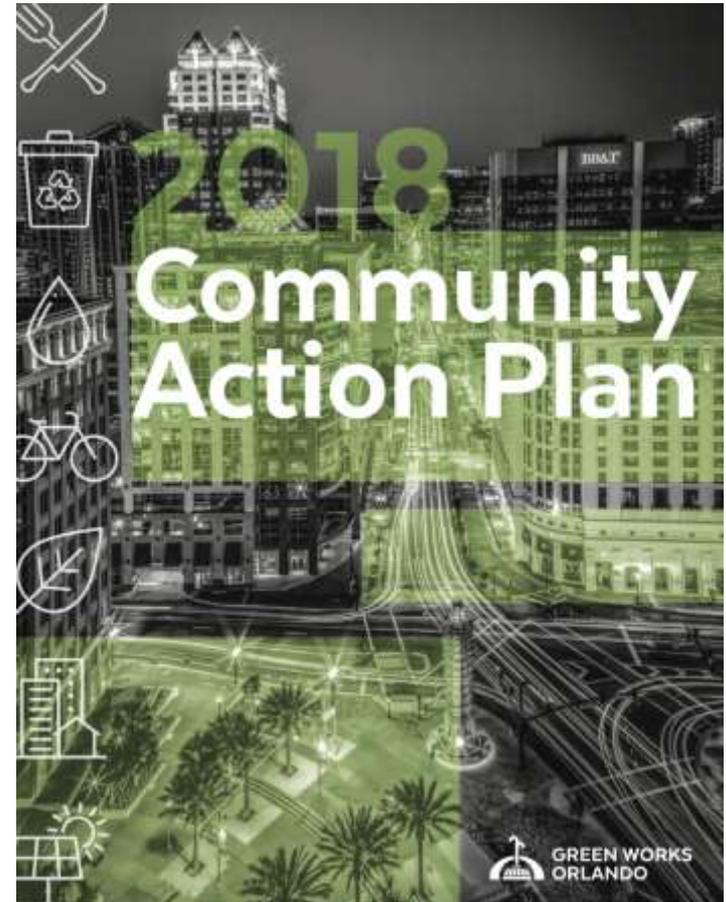
- Developing an **Environmentally Preferential Purchasing (EPP)** policy, each department must conserve and utilize existing materials and consistently choose more sustainable new products.





# Community Sustainability Action Plan 2018

- **Implement a Polystyrene, Plastic Bag and Plastic Straw Ban for All City Facilities, Parks and Affiliated Events**
  - Made of fossil fuels and synthetic chemicals
  - Non-biodegradable
  - Put wildlife at risk if accidentally mistaken for food
  - Contaminate our ponds, lakes, and marine environments





# Plastic Bags



- **102 billion plastic bags** used annually in the US.
- 12 million barrels of oil are used to make the 102 billion bags annually
- **113 countries + 127 cities** in the U.S. have bag bans or charge fee for plastic bags





# Expanded Polystyrene (EPS)

- **25 billion styrofoam** coffee cups every year
- Non-biodegradable
- **3 million tons of EPS are produced each year**
  - 90% of EPS is air
- Cost-effective alternatives exist





# Plastic Straws



- Americans use **500 million drinking straws every day.**
- Fill over 125 school buses with straws every day. That's 46,400 school buses every year!
- Americans use these disposable utensils at an average rate of 1.6 straws per person per day.
- **1/10 of the marine debris** around the World



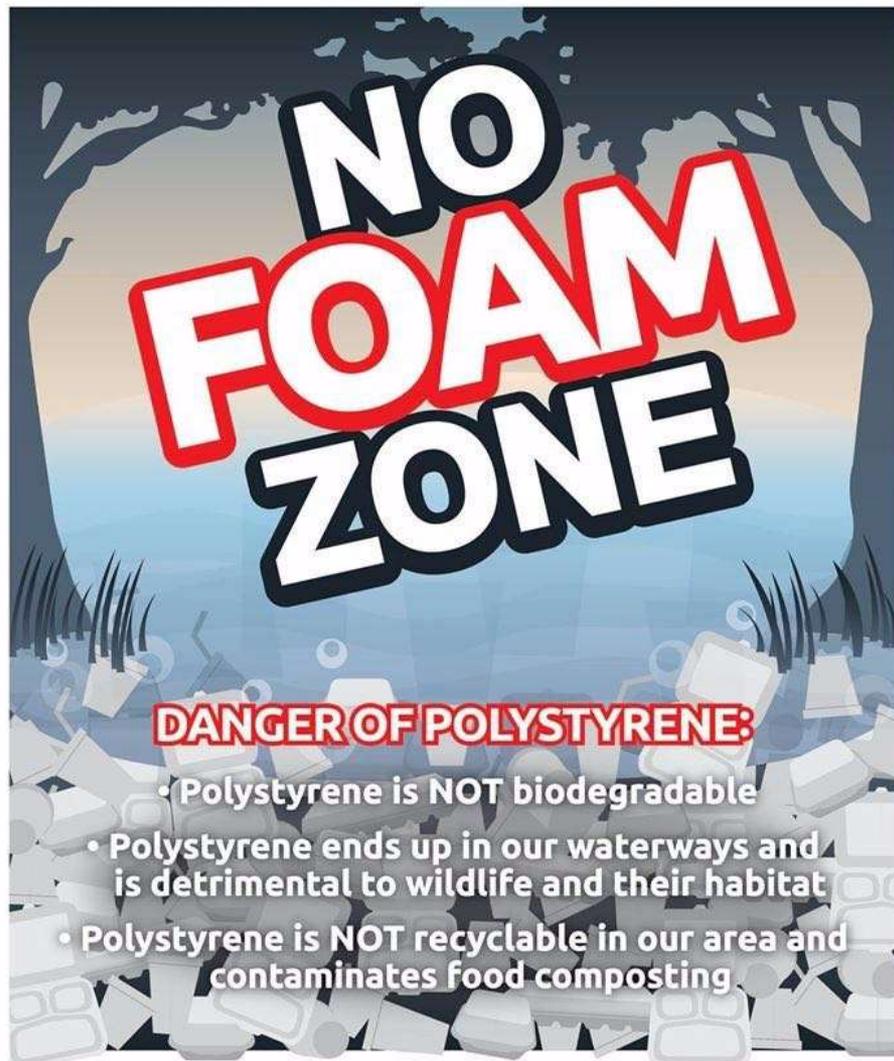


# Florida Regulations

**500.90 Regulation of polystyrene products preempted to department.**—The regulation of the use or sale of polystyrene products by entities regulated under this chapter is preempted to the department. This preemption does not apply to local ordinances or provisions thereof enacted before January 1, 2016, and does not limit the authority of a local government to restrict the use of polystyrene by individuals on public property, temporary vendors on public property, or entities engaged in a contractual relationship with the local government for the provision of goods or services, unless such use is otherwise preempted by law.

**403.7033 Departmental analysis of particular recyclable materials.**—materials. To ensure consistent and effective implementation, the department shall submit a report with conclusions and recommendations to the Legislature no later than February 1, 2010. Until such time that the Legislature adopts the recommendations of the department, no local government, local governmental agency, or state government agency may enact any rule, regulation, or ordinance regarding use, disposition, sale, prohibition, restriction, or tax of such auxiliary containers, wrappings, or disposable plastic bags.





FOR ADDITIONAL INFORMATION  
PLEASE CONTACT

ERIC ROLLINGS  
CHAIRMAN



ORANGE SOIL AND WATER  
CONSERVATION DISTRICT  
(407) 256 - 2470  
OR THE WEBSITE BELOW

Join the groups that are working to make Orlando a  
**NO FOAM ZONE!**

Sierra Club of Central  
Florida  
ECO-Action  
Central Florida Surfrider  
Foundation

IDEAS For Us  
Audobon of Central Florida  
Foundation for Florida  
Environmental Protection

**NOFOAMZONE.ORG**

Over 2,000 petition signatures  
by residents in Orlando

Voted highest priority during  
Green Works Community  
Action Plan meetings

Participating businesses  
include:

Universal Studios, Hammered Lamb, Will's Pub, Outpost Neighborhood Kitchen, Pom Poms Teahouse, Tako Cheena, Se7en bites, Juice Bar, St. Matthew's Tavern, First Watch (all locations), Panera Bread, Bikes Beans & Bordeaux Cafe, East End Market, Kelly's homemade ice cream, Houndstooth Kitchen and Eatery, P is for Pie bake shop, Florida & Company Kitchen and Eatery, Gideon Bakehouse, Marlow's Tavern, Yellow Dog Eats, Rusteak College Park, Once Upon a Child, Infusion Tea, Market on South, Trader Joe's, Aldi, Good Golly Miss Molly, Wild Hare Kitchen and Garden Emporium, Reyes Cafe, The Strand, Le Femme du Fromage, Jason's Deli, and more!



# Recommended Policy

Define “Single-use products” as food service related products that are designed to be used only once in the same form and then disposed of or destroyed. Single-use products include, but not limited to, polystyrene products, plastic straws, and plastic bags.

Recommended policy would mean “single-use products”, as defined above, may not be sold or disbursed on City property or used by City contractors, permittees, or licensees, unless authorized by the Chief Administrative Officer, Chief Financial Officer, or designee.





## Recommended Policy

Policy would require City to use any compostable materials, biodegradable materials, reusable materials, or recyclable materials as alternatives. City may access the Biodegradable Products Institute (BPI), which is an online catalog of key individuals and groups from government, industry and academia, which promotes the use and recycling of biodegradable polymeric materials (via composting).

In recognition of the needs of customers with disabilities, plastic straws may be provided upon request.

Policy would effect all City-owned facilities, venues, parks, and affiliated events.





# Recommended Policy

## Exemptions:

This policy does not apply to single-use products used for pre-packaged food that have been filled and sealed prior to receipt by the City contractor, permittee, or licensee, or for packaging unwrapped food items, such as raw meat, poultry and fish.

This policy does not apply to City permittees for events or facility rentals attended by 100 people or less.

Effective date: October 1<sup>st</sup>, 2019





# Proposed Timeline

## **Nov 2018 – May 2019:** Stakeholder engagement

- Orlando Venues
- Family, Parks, & Recreation
- Procurement
- Real Estate (+Tenants)
- Communications
- Mayor's Office
- CAO Office
- City Attorney's Office
- Community organizations and nonprofits (Sierra Club, IDEAS For Us, etc)

## **March 2019 – May 2019:** Policy development

**May 28<sup>th</sup>:** Operations Committee

**June 3<sup>rd</sup>:** City Council resolution

**October 1, 2019:** Policy begins





# Alternative Products





# GREEN WORKS ORLANDO



**City**

**Location**

**Ban Announcement**

Gainesville

FL

Mar-18

St. Petersburg

FL

Dec-18

Coral Gables

FL

May-17

2016

Portland

OR

Jun-18

Seattle

WA

Jun-18\*

Miami Beach

FL

Jul-18

Miami Dade County

FL

Jul-16

Washington

DC

Polystyrene 2014. Plastic straw ban  
2016

## Implementation

## Scope

## Exemptions

Planned for August 2019

Public and Private - details still in the works

Details still in the works

Straw-by-request-only for 2019, full ban with penalties begins 2020. Styrofoam ban begins 2019.

Applies to businesses contracting with the city, operating on public property or public right of way (ex. Food trucks) to avoid contradicting 2008 state ordinance.

Exemptions for grocery stores, convenience stores, drive thrus, and hospitals

12 month education period for businesses, allowed to use last of inventory, as verified by city officials, after ban started in May 2018.

Applies to all retail establishments and special events

Exemptions for bags for prescription meds, door hanger bags, newspaper bags, garbage bags, pet waste bags, and yard waste bags

12 month education period for businesses. Styrofoam ban implemented Jan 1, 2017.

Applies to all city vendors and contractors in city facilities, special event permittees and their subcontractors, food service providers and stores within the city. Does not apply to non-for-profit corporations, the school district, county, state, and federal governmental entities.

Financial hardship waivers available for any business making less than \$500,000 annually. Exemptions for articles in prepackaged food which was sealed before the retailer received it and food service articles used to store raw meat, pork, fish, seafood, or poultry sold from a butcher display case or similar refrigerated retailed display or storage case.

Takes effect July 1, 2019	Replaces existing ordinances which also banned plastic bags (2011) and Styrofoam containers (1990). Adds provision requiring businesses to give out plastic utensils, straws, and condiment packets only when the customer requests them.	Exemptions for bags used for medications, and bags without handles used to protect one item from another
Jul-18	In 2008, Seattle enacted a plan to reduce plastic pollution which included exemptions for certain products (like straws) which were renewed yearly. In 2018, the city council did not renew these exemptions.	Temporary exemptions for milkshake spoons, bendable spoons required by disabled customers, metal faced foil used to wrap hot items, and 2 oz and under portion cups.
3 month public education period; 3 months of written warnings. Full implementation on Feb 1, 2019	Prohibits single use plastic straws and stirrers on the City's beaches, streets, parks, sidewalks cafes, docks, marinas, waterways, and other public places and bans the distribution of plastic bags from sidewalk cafes	No exceptions to the straw ban.
12 month education period. July 2017	Prohibits sale or use of polystyrene products, such as coolers, plates, bowls, to-go cups, lids, tableware, boxes, bags, wrappings, and others, from all Miami-Dade parks including beaches.	No exceptions listed

Ban on polystyrene took effect in 2016, plastic straw ban took effect on January 1, 2019

Prohibits the sale, use, or provision of polystyrene containers for food service, and requires that all food service ware provided by food service businesses be compostable or recyclable.

Food or beverages that were filled and sealed in expanded polystyrene containers before a food service business received them or to materials used to package raw, uncooked, or butchered meat, fish, poultry, or seafood for off- premises consumption. Mayor has the power to exempt if he/she determines that there is no cost effective substitute for certain items, must review and updates exemption list annually. Restaurants are allowed to keep a limited stock of plastic straws in case they are requested by a disabled customer

## Penalties

## Issues

## Sources

Details still in the works

Initial opposition from small restaurant owners concerned about higher costs; some became more supportive after seeing reduced costs when asking customers if they wanted straws.

[banning-plastic-and-styrofoam-making-restaur](#)

<https://www.gainesville.com/news/20181206/city-closer-to-styrofoam-plastic-bag-l>

No penalties for the first 3 months of 2019. Warnings issued for the rest of the year. Starting 2020, first offense results in a warning, second in a \$40 fine, and all subsequent offenses in the same year in an \$80 fine.

Broad public support shown at open meeting, especially from young people

[urg/st-petersburg-to-vote-on-straw-ban-2018:](#)

Enforcement fines are per day, not per plastic bag. First violation results in a \$50, second in \$100, third in \$500, and \$1000 for any further violations within a 12 month period.

Similar legal challenge as the city faced with the styrofoam ban expected. The state legislature has still failed to produce report as promised, so similar ruling likely

[oralgables.com/plasticbags](#)

<https://www.flkeysnews.com/news/local/environment/article147580559.html>

First violation with a 12 month period results in a fine of \$50, second in \$100, third in \$500, all additional violations in \$1000

Legal challenge from Florida Retail Federation claiming they violated state law; judge ruled in favor of the city because the state legislature had not yet produced a report on the impact of single use plastics the law in question promised

[ibles.com/expandedpolystyrene](#)

<https://www.abetterbalance.org/resources/florida-retail-federation-v-coral-gables-dec>

First violation in a 12 month period will result in a warning, second in a fine of \$100, third in a fine of \$200, and all subsequent offenses in a fine of \$500

Broad support. Many businesses began to comply voluntarily with the by-request-only policy before the 2018 ordinance passed, [doregon.gov/bps/article/708847](https://www.portlandoregon.gov/bps/article/708847) some went further and eliminated plastic straws entirely, switching to metal or plastic.

<https://www.portlandoregon.gov/bps/article/706080>

\$250 fine for each violation

No major opposition noted, likely due to the very long [@spu/@foodyard/documents/webcontent/1](https://www.seattle.gov/util/forbusinesses/solidwaste/foodyardbusinesses/commercial/foodpackaging) wind up period

<http://www.seattle.gov/util/forbusinesses/solidwaste/foodyardbusinesses/commercial/foodpackaging>  
<https://www.cbsnews.com/news/seattle-becomes-first-u-s-city-to-ban-plastic-utensils-and-utensils/>

Fines for the first offense range from \$100 to \$1500 with the highest fines given to offenders on the beach, parks, waterways, and marinas

Broad support, some uncertainty surrounding ongoing Coral Gables lawsuit. General pushback from some in the disabled community who find plastic straws the best method of drinking while confronting certain muscular disorders [77/City-of-Miami-Beach-Moves-Toward-Becoming-Plastic-Free](https://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article215777777/City-of-Miami-Beach-Moves-Toward-Becoming-Plastic-Free)

<https://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article215777777/City-of-Miami-Beach-Moves-Toward-Becoming-Plastic-Free>  
[https://www.cnn.com/2018/07/11/health/plastic-straw-bans-disabled-trnd/index.h](https://www.cnn.com/2018/07/11/health/plastic-straw-bans-disabled-trnd/index.html)

\$50 fine, stated purpose more to educate rather than punish citizens

Some concern about whether all residents could afford plastic rather than cheaper polystyrene coolers. [releases/2017-06-13-polystyrene-ban.asp](https://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article215777777/City-of-Miami-Beach-Moves-Toward-Becoming-Plastic-Free)

<http://debrisfreeoceans.org/miami-dade-county-passes-ordinance-to-ban-styrofoam>

Warning for the first violation, any additional violations will incur a fine between \$100 - \$800, fines awarded per straw at DOEE discretion

Interesting note: violators are discovered through a tip <https://www.usdc.org/dc/council/laws/20-142.html> line and random inspections.

<https://doee.dc.gov/foodserviceaware>

[https://doee.dc.gov/sites/default/files/dc/sites/ddoe/page\\_content/attachments/FOAM%201](https://doee.dc.gov/sites/default/files/dc/sites/ddoe/page_content/attachments/FOAM%201)

[https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service\\_content/attachments/Straw%20and%20Rec-C](https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/Straw%20and%20Rec-C)

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## Example Food Container Prices from [www.webstaurantstore.com](http://www.webstaurantstore.com)

Container Type and Material	Price/Case	Units/Case	Price/Unit
<b>9"*9"*3" Clamshell Container</b>			
Foam (Dart White Foam Hinged Lid Take Out Container)	\$20.11	200	\$0.10
Fold-Pak Earth Paper 32 oz (Asian style)	\$60.25	450	\$0.13
Choice Kraft Paper 8.5"*6"*2"	\$29.07	200	\$0.15
EcoChoice Bagasse 9"*9"*3"	\$32.61	200	\$0.16
Choice Kraft Paper 8.75"*6.5"*3"	\$30.06	160	\$0.19
9" Round Foil with Board Lid	\$38.42	200	\$0.19
DART PET (#1) Plastic 8" square	\$52.27	250	\$0.21
<b>6"*6"*3" Clamshell Container</b>			
Foam (Dart White Foam Hinged Lid Take Out Container)	\$22.19	500	\$0.04
Fold-Pak Earth Paper 16 oz (Asian style)	\$32.73	450	\$0.07
Choice Kraft Paper 4.38"*4.13"*2"	\$35.64	450	\$0.08
EcoChoice Bagasse 6"*6"*3"	\$47.34	500	\$0.09
7" Round Foil with Board Lid	\$24.61	200	\$0.12
DART PET (#1) Plastic 5" square	\$58.08	500	\$0.12
Choice Kraft Paper 6"*5.75"*2.5"	\$37.50	300	\$0.13
<b>12 oz Cup</b>			
Foam (Dart Customizable Foam Cup)	\$31.49	1000	\$0.03
Choice Poly Paper Hot Cup	\$31.50	1000	\$0.03
Choice Poly Paper Cold Cup	\$56.70	2000	\$0.03
PET (#1) Plastic Cold Cup	\$45.27	1000	\$0.05
EcoChoice Paper Hot Cup	\$59.34	1000	\$0.06
<b>16 oz Cup</b>			
Foam (Dart Customizable Foam Cup)	\$44.29	1000	\$0.04
Choice Poly Paper Hot Cup	\$37.05	1000	\$0.04
Choice Poly Paper Cold Cup	\$36.96	1000	\$0.04
PET (#1) Plastic Cold Cup	\$44.93	1000	\$0.04
EcoChoice Paper Hot Cup	\$67.42	1000	\$0.07
<b>9" Round Plate</b>			
Foam (Dart Concorde non-laminated)	\$18.44	500	\$0.04
Foam (Dart Quiet Classic laminated)	\$24.62	500	\$0.05
Dart Solo heavy weight paper	\$50.53	1000	\$0.05
EcoChoice Bagasse	\$32.35	500	\$0.06
<b>12 oz Soup Bowl and Lid</b>			
Foam (Dart Customizable Foam Food Bowl + translucent v	\$42.74	500	\$0.09
Choice Double Poly-Coated Paper with lid	\$21.39	250	\$0.09
ChoiceHD Translucent Plastic (#5) with lid	\$21.07	240	\$0.09
EcoChoice Kraft Compostable Paper	\$33.84	250	\$0.14
EcoChoice Compostable Paper (compostable lid sold separ	\$79.43	500	\$0.16
<b>Coffee Stirrers</b>			
Choice 5" Black Unwrapped Plastic	\$8.13	10000	

Choice 7.5" Black Unwrapped Plastic 5"	\$11.76	10000
Royal Paper 5.5" Eco-Friendly Wood Coffee Stirrer	\$12.86	10000

Submitted by Member Blase Butts

Sustainability by reducing single use plastic products and Styrofoam.

The preemption laws in Florida do NOT prevent local governments from banning single use plastics and Styrofoam on city owned property. This includes city buildings, event venues and parks.

- FL 500.90 - Regulation of polystyrene products.
- FL 403.7033 - Departmental analysis of particular recyclable materials regarding plastic bags
- SB 588/ HB 603 – Remove regulatory powers from local government for plastic straws

A list of some of the cities in Florida to institute ban for city departments, contractors or special event permit holders to sell or disburse these two types of products;

- **Boynton Beach** 04/20/2021. Also specifies use of balloons and confetti in outdoor areas of city property.
- **Largo** 12/18/18. Ordinance 2019-19.
- **Stuart** 11/5/2019. Ordinance 2413-2019
- **Orange County** 02/03/2020. Also specifies plastic bags, plastic straws, stirrers foam cups/plates/containers
- **Ft. Lauderdale** July 2019 Ordinance 16-140 and 11/17/2020 Ordinance 16-151. Also specifies plastic bags, plastic straws, stirrers foam cups/plates/containers
- **Orlando** 10/01/2019 Ordinance 137.2

There are 10+ more



## Single-Use Products on Public Property

### Policy Briefing Sheet

#### Objective:

To further advance the environmental sustainability of Orlando by reducing the use of non-biodegradable polystyrene products and single-use plastics in the City and encouraging the use of recyclable, reusable, or compostable alternatives on City-owned property, venues, parks, and/or affiliates events.

#### Purpose:

To provide and maintain for the citizens and visitors of the City a healthy and aesthetically-pleasing experience, while simultaneously advancing the City's sustainability goals and contributing to its long-term economic vitality, by eliminating the use of these non-biodegradable and environmentally deleterious products into surrounding ecosystems and landfills.

#### Background:

- Green Works Orlando mission: "Transform Orlando into the most environmentally-friendly, socially inclusive, and economically vibrant City in America." - Orlando Mayor Buddy Dyer
- In 2017, Mayor Dyer asked Chris Castro to explore a policy to eliminate polystyrene and single-use products from city-owned property.
- 2017 Green Works Municipal Sustainability Action Plan
  - Goal #7: 100% of municipal materials meet environmentally-preferential purchasing (EPP) and disposal standards by 2030
- 2018 Green Works Community Sustainability Action Plan
  - Strategy #25: Implement a Polystyrene, Plastic Bag and Plastic Straw Ban for All City Facilities, Parks and Affiliated Events

#### Issues with polystyrene and single-use plastic items:

- Made of fossil fuels and synthetic chemicals, contributing to air pollution and climate change.
- Non-biodegradable products that add waste to our landfills
- Put wildlife at risk if accidentally mistaken for food
- Contaminate our stormwater ponds, lakes, parks, and nearby marine environment
  - Plastic Bags
    - 102 billion plastic bags used annually in the US; 12 million barrels of oil<sup>1</sup>
    - 113 countries + 127 cities in the U.S. have bag bans or charge fee for plastic bags<sup>2</sup>

<sup>1</sup> Waste Management statistics: <http://www.wmnorthwest.com/guidelines/plasticvspaper.htm>

<sup>2</sup> Center for Biological Diversity: [https://www.biologicaldiversity.org/programs/population\\_and\\_sustainability/sustainability/plastic\\_bag\\_facts.html](https://www.biologicaldiversity.org/programs/population_and_sustainability/sustainability/plastic_bag_facts.html)



- Plastic Straws<sup>3</sup>
  - America uses 500 million drinking straws every day
  - 1/10 of the marine debris around the World
- Expanded Polystyrene (EPS aka Styrofoam)<sup>4</sup>
  - 25 billion Styrofoam coffee cups every year
  - 3 million tons of EPS are produced each year

#### Key reasons for moving this policy forward:

1. Expanded polystyrene (aka styrofoam), plastic bags, and plastic straws are **non-biodegradable products** that are made from fossil fuels and contributing to environmental degradation. These items are often used for a few minutes and discarded, only to be around in our environment for hundreds of years for plastic, and in the case of expanded polystyrene, over 1 million years before they decompose. They are simply unsustainable.
2. The current recycling markets in Orlando and across America is having challenges with **contamination in recycling**, products that people are putting into the bin because they wish it can be recycled. The three top items found to contaminate recycling streams are expanded polystyrene, plastic bags, and plastic straws. As such, to improve our recycling diversion rates and minimize our contamination in recycling, we are addressing the root of the problem by moving away from using those contaminants where the City has control.
3. The **main liter items** found in our parks, lakes, rivers, and oceans are expanded polystyrene, plastic bags, and plastic straws. They are hazardous for wildlife as they get confused as food, they make these natural places unpleasant aesthetically, they affect water quality, and they are beginning to impact human health with the onset of bioaccumulation of microplastics.

#### Current State pre-emptions regarding plastic bags, polystyrene, and plastic straws overview:

- FL 500.90 - Regulation of polystyrene products.
- FL 403.7033 - Departmental analysis of particular recyclable materials regarding plastic bags
- SB 588/ HB 603 – Remove regulatory powers from local government for plastic straws  
(*Passed Spring 2019 legislature. Vetoed by Governor Ron DeSantis*)

#### Community outreach & stakeholder engagement:

- Executive Offices (Mayor, CAO, City Attorney)
- OCNR
- OFB / Procurement
- Real Estate (4Rivers, Relax Grill, Mesa21, Super Rico, Tropical Smoothie)
- FPR
- Orlando Venues

<sup>3</sup> New York Times, <https://www.nytimes.com/2018/07/09/business/starbucks-plastic-straws.html?module=inline>

<sup>4</sup> Earth Day Network, "How Much Disposable Plastic?": <https://www.earthday.org/2018/04/18/fact-sheet-how-much-disposable-plastic-we-use/>



- EDV
- DDB / CRA
- Permitting
- OPD

#### **Additional Florida cities with Polystyrene, Bag, and/or Straw policies**

- Polystyrene ban (5): Miami-Dade County, Coral Gables, Gainesville, Hollywood, St. Petersburg
- Plastic Bag ban (2): Coral Gables and Gainesville
- Plastic Straw ban (10): St. Petersburg, Miami Beach, Surfside, Sanibel, Marco Island, Hallandale Beach, Ft. Myers, Deerfield Beach, Dania Beach, Hollywood
- No city or County in Florida has passed internal policy to eliminate all three items

#### **Summary of Recommended policy, 137.2:**

- Define “Single-use products” as food service related products that are designed to be used only once in the same form and then disposed of or destroyed. Single-use products include, but not limited to, polystyrene products, plastic straws, and plastic bags.
- Recommended policy would mean “single-use products”, as defined above, may not be sold or disbursed on City property or used by City contractors, permittees, or licensees, unless authorized by the Chief Administrative Officer, Chief Financial Officer, Chief Venue Officer, or designee.
- Policy would require the use of compostable materials, biodegradable materials, reusable materials, or recyclable materials (plastic #1 and #2) as alternatives.
- In recognition of the needs of customers with disabilities, plastic straws may be provided upon request.
- Policy would affect all City-owned facilities, venues, parks, and affiliated events (18A permits).
- Applicable contracts, agreements, leases, permits, and licenses should include a notice to contractors, permittees, and licensees that single-use products are not permitted on City property. The use of recyclable, reusable, biodegradable, and compostable alternatives is encouraged.
- This policy only applies to new contracts solicited or entered into, and permits granted, after its effective date.



- Exemptions:
  - Single-use products used for pre-packaged food that have been filled and sealed prior to receipt by the City contractor or permittee, or for packaging unwrapped food items, such as raw meat, poultry and fish.
  - Single-use products used by a City permittee for events or facility rentals attended by 100 people or less.
- Effective date: October 1<sup>st</sup>, 2019

### **Enforcement**

- The City may revoke or cancel any permit for non-compliance with this policy, and may use past non-compliance as grounds for not renewing or re-issuing a permit.
- Where applicable under the terms of a contract, the City may pursue appropriate contractual remedies for non-compliance with this policy, including termination and/or preclusion or debarment from future City contracts.
- The City may hold the “damage deposit” for any park event or 18A permitted event following non-compliance with this policy.
- Events or facility rentals by 100 people or less will be encouraged to comply by receiving the “Parks Rules” which will include this policy. No enforcement will be needed as these events are exempt.

### **Financial impact:**

- Alternative products range from cost neutral to \$0.06/unit in additional cost, depending on the alternative being selected.
- See matrix of items for reference

### **Timeline:**

- **Nov 2018 – April 2019:** Stakeholder engagement
- **March 2019 – May 2019:** Policy language development and stakeholder feedback
- **May 28<sup>th</sup>, 2019:** Policy recommendation to Operations Committee for approval
- **June 3<sup>rd</sup>, 2019:** City Council resolution
- **October 1<sup>st</sup>, 2019:** Policy begins



# City of Pensacola

222 West Main Street  
Pensacola, FL 32502

## Memorandum

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**File #:** 21-00976

Environmental Advisory Board

11/4/2021

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### **DISCUSSION ITEM**

**SPONSOR:** Katie Fox, Board Member

**SUBJECT:**

INTEGRATED PEST MANAGEMENT (IPM) PROGRAM

**SUMMARY:**

The City has created an IPM for the use on athletic fields. The question that has arisen is should there be an IPM that incorporates the entire city, not just athletic fields.

This item seeks to discuss what has previously taken place, board member proposed amendments to the existing document and a discussion of the need to have an overriding document that incorporates the entire city.

**PRIOR ACTION:**

The Environmental Advisory Board has discussed at numerous meetings.

**STAFF CONTACT:**

Don Kraher, Council Executive

**ATTACHMENTS:**

- 1) City's IPM Plan
- 2) IPM Plan For Athletic Fields\_KF
- 3) Kozman Comments\_COP IPM PLan

**PRESENTATION:** No

## Integrated Pest Management (IPM) Plan Athletic Fields City of Pensacola

The City of Pensacola Parks and Recreation Department recognizes the potentially serious risks inherent in using chemical pesticides on athletic facilities – especially in an environmentally sensitive areas. We are committed to implementing a comprehensive Integrated Pest Management Plan (IPM) for all athletic fields in the city. The IPM plan will be defined as the coordinated use of physical, biological and cultural controls, and in the face of any public health threat or substantial property damage, the use of least-toxic pest control chemicals.

The objectives for using an IPM plan for athletic fields in the City of Pensacola are to:

- Maintain a safe and sustainable environment;
- Protect the health of residents, staff and visitors by controlling or eliminating pests that pose an imminent threat to public health and safety;
- Reduce or eliminate human exposure to pesticides through use of least-risk management practices;
- Reduce or prevent pest damage to athletic playing areas;
- Reduce or eliminate environmental pollution and degradation;
- Maintain economically sound practices for pest management on athletic fields
- Enhance the overall quality of play for those who use city athletic fields.

Integrated Pest Management is understood to involve monitoring of pest populations, establishment of tolerance thresholds, modifications of habitats (to eliminate sources of food, water and harborage and entry), utilization of least-toxic controls, keeping records and evaluation of performance on an ongoing basis. It is the responsibility of the Ball Crew Operations Supervisor and Ball Crew personnel to ensure that any maintenance and pest control services provided by Parks and Recreation staff comply with the best practices listed in this IPM plan to minimize the use of fertilizers, pesticides and herbicides. A pesticide is defined as any insecticide, rodenticide, herbicide, algacide, disinfectant or other chemical utilized to kill or repel a pest. Any use of chemicals will be in compliance with federal and state laws

### **Detection and Monitoring**

An IPM approach to turf management begins with a monitoring program. Monitoring entails making regular inspections of the turf to gather and record site-specific information on which to base pest control decisions.

- identify the pest(s)
- identify any natural enemies of the pest(s)
- apply preventive methods to reduce the occurrence of pest problems
- determine if any treatment is needed
- determine where, when, and what kind of treatments is needed
- evaluate and fine-tune treatments as the pest management program continues over the seasons

## **Tolerance Threshold**

- Weeds: The goal for the athletic field turf is not to eliminate all weeds; it is to keep weed numbers low enough to prevent significant visual damage. Lawns are a very dynamic ecosystem, and even under optimum grass-growing conditions some weeds will become established. Even height smooth turf is required on athletic fields. Treatment for weeds will be considered necessary if weed growth causes the lawn surface to be too uneven for field sports and thus endangers athletes using the respective field.
- Diseases: Lawn diseases, if encountered, will be managed quickly after discovery to minimize the spread of disease.
- Insects: Even height smooth turf is required on field areas. The presence of an infestation will be verified prior to treatment. Treatment for insect infestation will be considered necessary when damage is noticeable, unsightly and/or impacting play on the athletic field and potentially endangering athletes.

## **Preventative Measures and Treatment**

- The Parks and Recreation Department will follow the recommendations for management of weeds, diseases, insects and other lawn issues in the Green Industry Best Management Practices guidelines along with consultation with a professional pest and lawn maintenance company. The following management techniques will be employed, with preference given to using the least-toxic methods first.
- Physical measures can include the use of buffer zones adjacent to environmentally sensitive areas surrounding athletic fields. Buffer zones will receive no pesticide or fertilizer applications.
  - Weeds: Mowing, pulling or weed-eating will be used to remove rank growth before weeds have flowered and set to seed.
  - Diseases: Physical removal of diseased turf may be possible if the disease is discovered early enough.
  - Insects: When possible, pest insects will be physically eradicated.
  - Other lawn problems: Shade stress will be managed by pruning tree branches to minimize shade whenever appropriate. Stress from compaction will be minimized in the following ways:
    - Use of sidewalks in pedestrian pathways, where possible as it relates to athletic field areas.
    - Physical barriers or signs to prevent foot traffic.
- Cultural: Consistent use of the following cultural lawn care practices will provide high quality turf and successfully limit weed, disease, insect and other lawn problems. The presence of weeds and other pests can often be correlated to stressful lawn maintenance practices. The following cultural methods will be utilized:
  - Irrigation: It is difficult to maintain an athletic field without periodic irrigation, especially in a relatively hot climate as that of Pensacola. An irrigation system will be utilized for the turf areas of athletic fields. Irrigation will be managed to supplement rainfall. Frequency and duration will depend on environmental factors. The best time to irrigate is just before wilt occurs. Enough water needs to be applied to soak the soil to a depth of at least 6 to 8 inches. This will likely mean applying approximately 1 inch of water per week during the summer before sunrise or after sunset to reduce water loss from

evaporation. If irrigation is necessary, it will generally be utilized 24 to 48 hours before a major field use to reduce soil compaction. Irrigation will be closely monitored and scheduled by staff to prevent over and under watering and help conserve water.

- Mowing: Proper mowing promotes deep rooting and good shoot density, desirable mat, and uniform growth. Regular mowing at the right height with properly-maintained equipment will be the goal. Mowing height of the turf will depend on the type of turf used on athletic fields. For Bermuda grasses a mowing height, 1½ to 2 inches is preferred. The first mowing in the spring should be low by as much as one-half the desired final height. This helps increase turf density and allows the cutting height to be raised during the summer if scalping occurs. Turf should be mowed often enough so that no more than one-third of the leaf surface is removed at a mowing. Generally, this means the field should be cut twice a week during the summer. Higher mowing heights do not need as frequent mowing but result in lower quality and weaker turf. If mowing frequency is properly adjusted, clippings may be returned without harming the turf. If excessive clumping of clippings occurs, they should be dispersed or removed. Regardless of the type of mower used, it is important to keep the blades sharp and properly adjusted.
- Aeration: Lawns will be aerated regularly, as needed. Aeration will occur more frequently in areas that are compacted by frequent foot traffic or athletic play. As a general rule, the spacing between aeration holes should be 2 to 3 inches. Aerate fields a minimum of two times per year. The first should be done in the spring just before fertilization and the second in mid-summer. Each aeration should involve a minimum of three passes over the playing field. If field use is heavy or the soil is compacted, aerate monthly during the growing season. After the soil cores have dried, they can be crumbled and spread over the turf by using a flexible steel drag mat or some other means. Slicing with solid blades ¼ to ½ inch wide cultivates the soil with minimum surface disruption. Units with offset tines can be quite effective in relieving soil compaction. Aerate when soil moisture is at field capacity. This generally translates to 8 to 24 hours after rainfall or irrigation or when a spoon-type aerator would remove soil cores to the surface. If moisture were higher or lower, cores would not easily move to the surface. However, some equipment, particularly solid tines or blades, are most effective when soil moisture is drier than field capacity. Aerate when the turf is actively growing and not under stress.
- Fertilization: Soil examination by soil test (pH) and/or professional visual analysis will be performed regularly to determine the need for fertilization. When required, fertilization will be accomplished by the use of a granular organic fertilizer. If additional fertilization is required, as demonstrated by soil test and/or professional visual analysis, 1/2 pound of nitrogen per 1000 square feet will be added no more than eight times a year, as required.
- Over seeding: Winter rye grass seeding may be employed, as it works with the respective athletic field schedule.
- Biological: Biological control tactics for weeds, insects, diseases and other lawn issues will be employed when possible.
  - Weeds: There are no biological controls proposed for weeds at this time.
  - Diseases: There are no biological controls proposed for diseases at this time.
  - Insects: Biological control of caterpillars, such as armyworms and sod webworms, will include the use of the bacteria *Bacillus thuringiensis* (Bt). More information about Bt can be found in Grow Green's Earth-wise Guide to Caterpillars.

- Chemical: Chemical controls will only be employed on an “as-needed” basis when problems exist that have not been or cannot be addressed by physical, cultural or biological practices. The following information is a sample of possible approaches. Specific chemical controls will change as availability and improvements in chemicals change.
  - Weeds: Initial spot treatment will be with acetic acid / horticultural grade vinegar (‘CedarCide RidAWeed’ and ‘Burnout’). If required, spot treatment with glyphosate (‘Roundup’) will be used. No pre-emergent herbicide use will be practiced. For nutgrass, Manage (halosulfuron) will be used, if necessary.
  - Diseases: Least toxic chemical controls for brown patch and take-all patch include corn gluten meal (Concern ® Weed Prevention Plus) and Thiophanate methyl (Green Light ® Systemic Fungicide Disease Control).
  - Insects: Positive identification of the insect pest will be made prior to the use of any chemical control.

### **Use of IPM Plan**

Pesticide products change on a regular basis, and those listed in this plan are provided for reference only. Listing of a specific product trade name does not constitute an endorsement of its use. Many pesticide products other than those listed in this plan are available and may be suitable for use. If a pest problem occurs that is not addressed by this management plan, or if the Ball Crew Operations Supervisor desires to use pesticides of greater toxicity than those listed, the Operations Supervisor shall alert the City of Pensacola Parks and Recreation Director. It should also be noted that this IPM Plan is a dynamic document and will periodically be reviewed and revised as circumstances in the City of Pensacola change and as new pest management products and techniques become available. The City of Pensacola Parks and Recreation Director will be notified whenever this document is substantially revised or altered.

### **Application of Pesticides or Chemicals**

When it is determined that pesticides or chemicals are needed for pest management on athletic fields, only products registered for use in the State of Florida will be applied with strict adherence to label directions. Applications will be undertaken only qualified staff. No pesticides or fertilizers will be used within 150 feet of any known critical environmental features or streams.

### **Notification**

Appropriate signs and notifications will be posted on or around athletic fields notifying the public prior to pest management activities that involve application of pesticides, herbicides or other potential chemical applications that could be harmful to humans. Appropriate efforts will be made to eliminate individuals coming in contact with any such applications to athletic fields within manufacturer specifications.

### **Recordkeeping**

A log book of all pest sightings and pest management activities will be kept in the office of the Ball Crew Operations Supervisor 2130 Summit Blvd , Pensacola, FL 32503. This log will be kept current by and will be available for public viewing upon request. Additionally, any time a pesticide is used for pest management purposes, a copy of the pesticide label, as well as the pesticide's Material Safety Data Sheet (MSDS) will be kept on record in an easily accessible location as a reference for applicators on proper use, storage and safety

### **Training**

City of Pensacola Parks and Recreation staff will be provided with training on the IPM policy during annual update training. Training will include the rationale for the IPM policy and program and specific elements including use of the pest-sighting log and prohibition on pesticide applications by non-certified individuals.

Additionally, designated will receive advanced training on identifying pest infestations and pest-conducive conditions. This training will improve the ability of staff to oversee compliance with City of Pensacola IPM policy and plan.

# Integrated Pest Management (IPM) Plan

## Athletic Fields

### City of Pensacola

#### **Statement of Purpose**

The City of Pensacola Parks and Recreation Department recognizes the potentially serious risks inherent in using chemical pesticides on athletic facilities – especially in an environmentally sensitive areas. We are committed to implementing a comprehensive Integrated Pest Management Plan (IPM Plan) for all athletic fields in the City. The City of Pensacola IPM Plan is defined as the coordinated use of physical, biological and cultural controls, and in the face of any public health threat or substantial property damage, the use of least-toxic pest control chemicals.

#### **Objectives**

The objectives of the IPM Plan for athletic fields in the City of Pensacola are to:

1. Maintain a safe and sustainable environment;
2. Protect human health and the surrounding environment by employing a range of preventative strategies and using least-toxic products for pest control and eradication.
3. Protect human health and the surrounding environment by controlling or eliminating pests that pose an imminent threat to public health and safety;
4. Reduce and/or eliminate human exposure to pesticides through minimization of the quantity and toxicity of chemicals used for pest management.
5. Establish clear criteria for acceptable circumstances in which using a pesticide other than a least-toxic pesticide is necessary; toxic pesticides shall only be used when there is a threat to public health and safety, or to prevent economic or environmental damage, and only after other alternatives have been implemented and are shown to be ineffective.
6. Reduce and/or prevent pest damage to athletic playing areas;
7. Reduce or eliminate environmental pollution and degradation;
8. Maintain economically sound practices for pest management on athletic fields
9. Enhance the overall quality of play for those who use city athletic fields.

#### **IPM Response Plan**

One of the characteristics of an IPM Plan is that it facilitates a streamlined decision making process approach for any pest problem in any location. This process involves monitoring of pest populations, establishment of tolerance thresholds, modifications of habitats (to eliminate sources of food, water and harborage and entry), utilization of least-toxic controls, keeping records and evaluation of performance on an ongoing basis. It is the responsibility of the Ball Crew Operations Supervisor and Ball Crew personnel to ensure that any maintenance and pest control services provided by Parks and Recreation staff comply with the best practices listed in this IPM plan to minimize the use of fertilizers, pesticides and herbicides. A pesticide is defined as any insecticide, rodenticide, herbicide, algaecide, disinfectant or other chemical utilized to kill or repel a pest. Any use of chemicals will be in compliance with federal and state laws.

## Detection and Monitoring

The IPM approach to turf management begins with a monitoring program. Monitoring entails making regular inspections of the turf to gather and record site-specific information on which to base pest control decisions.

- identify the pest(s)
- apply preventive methods to reduce the occurrence of pest problems
- monitor pest population
- identify any natural enemies of the pest(s)
- determine if any treatment is needed
- determine where, when, and what kind of treatments is needed
- evaluate and fine-tune treatments as the pest management program continues over the seasons

A sample evaluation form is provided below. The facilitate implementation and enhancement of the IPM Plan in the future, completed forms shall be retained in **Appendix A** of this IPM Plan.

Pest Name:	Actions take to control the problem						
Pest Location:							
This pest is a (circle all that apply)	Apply Preventative Methods	Monitor Pest Population	Identify Natural Enemies of the Pest	Determine Injury and Action Level	Monitor for Pest	Treat the Problem using IPM Tiered Procedures	Follow Up
Heath Concern Safety Issue Nuisance Aesthetic Concern Other:							

## Tolerance Threshold

Before any course of action can be determined, it is first important to determine the injury level. The injury level is the level of damage or the level of pest population that causes unacceptable injury. Once the injury level has been determined, an action level must be set. The injury level will always be higher than the action level, meaning that action should occur before the situation progresses the point of unacceptable injury. The following definitions and thresholds have been adopted as part of this IPM Plan:

### Definitions:

**Aesthetic Injury** applies mainly to the damage of plants. This is injury that affects the appearance without affecting the health of the plant.

**Economic Injury** refers to pest damage that causes monetary loss.

**Human Health Injury** relates to human health problems caused by pests.

**Emergency** – A pest outbreak that poses an immediate threat to public health or will cause significant economic or environmental damage.

**Tiered Materials** – Pesticide classification system based on hazard potential. Products are evaluated against comprehensive list of hazard criteria including carcinogenicity, reproductive toxicity, endocrine disruption, acute toxicity, hazard to birds/fish/bees/wildlife, persistence, and soil mobility, and are placed within the Tier structure based on the evaluation results.

Tier 1: Highest concern

Tier 2: Moderate concern

Tier 3: Lowest concern

Tier 4: Insufficient information available to assign to above tiers

**Least-toxic pesticide** – The term “least toxic” refers to pesticides that have low or no acute or chronic toxicity to humans, affect a narrow range of species and are formulated to be applied in a manner that limits or eliminates exposure of humans and other non-target organisms. Fortunately, there are an increasing number of pesticides that fit within this least toxic definition. Examples include products formulated as baits, pastes or gels that do not volatilize in the air and that utilize very small amounts of the active ingredient pesticide and microbial pesticides formulated from fungi, bacteria or viruses that are toxic only to specific pest species but harmless to humans.

Any pesticide product that meets the Tier 3 hazard criteria is low hazard, and considered a least-toxic pesticide. Tier 3 products are the next line of defense against pests after preventative measures are exhausted.

- To qualify as a Tier 3 material, all of the following statements must be true:
- Product contains no known, likely, or probable carcinogens
- Product contains no reproductive toxicants (CA Prop 65 list)
- Product contains no ingredients listed by CA DTSC as known, probable, or suspect endocrine disrupters
- Active ingredients has soil half-life of thirty days or less
- Product is labeled as not toxic to fish, birds, bees, wildlife, or domestic animals

**Pesticide** – Any substance, or mixture of substances, used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, which may be detrimental to vegetation, humans, or animals.

### **Thresholds:**

**Weeds** - The goal for the athletic field turf is not to eliminate all weeds; it is to keep weed numbers low enough to prevent significant visual damage. Lawns are a very dynamic ecosystem, and even under optimum grass-growing conditions some weeds will become established. Even height smooth turf is required on athletic fields. Treatment for weeds will be considered necessary if weed growth causes the lawn surface to be too uneven for field sports and thus endangers athletes using the respective field.

**Diseases** - Lawn diseases, if encountered, will be managed quickly after discovery to minimize the spread of disease.

**Insects** - Even height smooth turf is required on field areas. The presence of an infestation will be verified prior to treatment. Treatment for insect infestation will be considered necessary when damage is noticeable, unsightly and/or impacting play on the athletic field and potentially endangering athletes.

### **Preventative Measures and Treatment**

The Parks and Recreation Department will follow the recommendations for management of weeds, diseases, insects and other lawn issues in the Green Industry Best Management Practices guidelines along with consultation with a professional pest and lawn maintenance company. The following management techniques will be employed, with preference given to using the least-toxic methods first.

**Habitat Modification.** Pests need food, water and shelter to survive. If the pest manager can eliminate or reduce the resources pests need to flourish, the environment will support fewer pests. Examples of habitat modification include: design or redesign of structures and landscape plantings; improved sanitation; eliminating water sources for pests; and eliminating the pest habitat.

**Physical Controls:** Methods of physical control (or direct removal of pests from an environment) include trapping and removing pests by hand. Physical measures also include the use of buffer zones adjacent to environmentally sensitive areas surrounding athletic fields. Buffer zones will receive no pesticide or fertilizer applications. The following physical controls will be utilized:

- Weeds: Mowing, pulling or weed-eating will be used to remove rank growth before weeds have flowered and set to seed.
- Diseases: Physical removal of diseased turf may be possible if the disease is discovered early enough.
- Insects: When possible, pest insects will be physically eradicated.
- Other lawn problems: Shade stress will be managed by pruning tree branches to minimize shade whenever appropriate. Stress from compaction will be minimized in the following ways:
  - Use of sidewalks in pedestrian pathways, where possible as it relates to athletic field areas.
  - Physical barriers or signs to prevent foot traffic.

**Cultural Controls:** Consistent use of the following cultural lawn care practices will provide high quality turf and successfully limit weed, disease, insect and other lawn problems. The presence of weeds and other pests can often be correlated to stressful lawn maintenance practices. The following cultural methods will be utilized:

- Irrigation: It is difficult to maintain an athletic field without periodic irrigation, especially in a relatively hot climate as that of Pensacola. An irrigation system will be utilized for the turf areas of athletic fields. Irrigation will be managed to supplement rainfall. Frequency

and duration will depend on environmental factors. The best time to irrigate is just before wilt occurs. Enough water needs to be applied to soak the soil to a depth of at least 6 to 8 inches. This will likely mean applying approximately 1 inch of water per week during the summer before sunrise or after sunset to reduce water loss from evaporation. If irrigation is necessary, it will generally be utilized 24 to 48 hours before a major field use to reduce soil compaction. Irrigation will be closely monitored and scheduled by staff to prevent over and under watering and help conserve water.

- **Mowing:** Proper mowing promotes deep rooting and good shoot density, desirable mat, and uniform growth. Regular mowing at the right height with properly-maintained equipment will be the goal. Mowing height of the turf will depend on the type of turf used on athletic fields. For Bermuda grasses a mowing height, 1½ to 2 inches is preferred. The first mowing in the spring should be low by as much as one-half the desired final height. This helps increase turf density and allows the cutting height to be raised during the summer if scalping occurs. Turf should be mowed often enough so that no more than one-third of the leaf surface is removed at a mowing. Generally, this means the field should be cut twice a week during the summer. Higher mowing heights do not need as frequent mowing but result in lower quality and weaker turf. If mowing frequency is properly adjusted, clippings may be returned without harming the turf. If excessive clumping of clippings occurs, they should be dispersed or removed. Regardless of the type of mower used, it is important to keep the blades sharp and properly adjusted.
- **Aeration:** Lawns will be aerated regularly, as needed. Aeration will occur more frequently in areas that are compacted by frequent foot traffic or athletic play. As a general rule, the spacing between aeration holes should be 2 to 3 inches. Aerate fields a minimum of two times per year. The first should be done in the spring just before fertilization and the second in mid-summer. Each aeration should involve a minimum of three passes over the playing field. If field use is heavy or the soil is compacted, aerate monthly during the growing season. After the soil cores have dried, they can be crumbled and spread over the turf by using a flexible steel drag mat or some other means. Slicing with solid blades ¼ to ½ inch wide cultivates the soil with minimum surface disruption. Units with offset tines can be quite effective in relieving soil compaction. Aerate when soil moisture is at field capacity. This generally translate to 8 to 24 hours after rainfall or irrigation or when a spoon-type aerator would remove soil cores to the surface. If moisture were higher or lower, cores would not easily move to the surface. However, some equipment, particularly solid tines or blades, are most effective when soil moisture is drier than field capacity. Aerate when the turf is actively growing and not under stress.
- **Fertilization:** Soil examination by soil test (pH) and/or professional visual analysis will be performed regularly to determine the need for fertilization. When required, fertilization will be accomplished by the use of a granular organic fertilizer. If additional fertilization is required, as demonstrated by soil test and/or professional visual analysis, 1/2 pound of nitrogen per 1000 square feet will be added no more than eight times a year, as required.
- **Over seeding:** Winter rye grass seeding may be employed, as it works with the respective athletic field schedule.

**Biological Controls:** Biological control tactics for weeds, insects, diseases and other lawn issues will be employed when possible. The following biological controls will be utilized:

- Weeds: There are no biological controls proposed for weeds at this time.
- Diseases: There are no biological controls proposed for diseases at this time.
- Insects: Biological control of caterpillars, such as armyworms and sod webworms, will include the use of the bacteria *Bacillus thuringiensis* (Bt). More information about Bt can be found in Grow Green's Earth-wise Guide to Caterpillars.

**Least Toxic Chemical Controls.** Least toxic pesticides are those with all or most of the following characteristics: they are effective against the target pest, have a low acute and chronic toxicity to mammals, biodegrade rapidly, kill a narrow range of target pests and have little or no impact on non-target organisms. These include materials such as the following:

- Pheromones and other attractants
- Insect growth regulators
- Repellents
- Desiccating dusts
- Pesticidal soaps and oils
- Some botanical pesticides

The following criteria should be used when selecting a pesticide:

- Safety
- Species specificity
- Effectiveness
- Endurance
- Speed
- Repellency
- Cost

Least toxic pesticides include:

- a) Boric acid and disodium octobrate tetrahydrate 6
- b) Silica gels
- c) Diatomaceous earth
- d) Nonvolatile insect and rodent baits in tamper resistant containers
- e) Microbe based pesticides
- f) Pesticides made with essential oils (not including synthetic pyrethroids) without toxic synergists and
- g) Materials for which the inert ingredients are nontoxic and disclosed.

The term least toxic pesticides does not include a pesticide that is:

- a) Determined by the U.S. EPA to be a possible, probable or known carcinogen, mutagen, teratogen, reproductive toxin, developmental neurotoxin, endocrine disrupter or immune system toxin;
- b) A pesticide in U.S. EPA's toxicity category I or II

- c) Any application of the pesticide using a broadcast spray, dust, tenting, or fogging application.

**Other Chemical Controls:** Chemical controls will only be employed on an “as-needed” basis when problems exist that have not been or cannot be addressed by physical, cultural or biological practices. The following information is a sample of possible approaches. Specific chemical controls will change as availability and improvements in chemicals change.

- Weeds: Initial spot treatment will be with acetic acid / horticultural grade vinegar (‘CedarCide RidAWeed’ and ‘Burnout’). If required, spot treatment with glyphosate (‘Roundup’) will be used. No pre-emergent herbicide use will be practiced. For nutgrass, Manage (halosulfuron) will be used, if necessary.
- Diseases: Least toxic chemical controls for brown patch and take-all patch include corn gluten meal (Concern ® Weed Prevention Plus) and Thiophanate methyl (Green Light ® Systemic Fungicide Disease Control).
- Insects: Positive identification of the insect pest will be made prior to the use of any chemical control.

### **Use of IPM Plan**

Pesticide products change on a regular basis, and those listed in this plan are provided for reference only. Listing of a specific product trade name does not constitute an endorsement of its use. Many pesticide products other than those listed in this plan are available and may be suitable for use. If a pest problem occurs that is not addressed by this management plan, or if the Ball Crew Operations Supervisor desires to use pesticides of greater toxicity than those listed, the Operations Supervisor shall alert the City of Pensacola Parks and Recreation Director. It should also be noted that this IPM Plan is a dynamic document and will periodically be reviewed and revised as circumstances in the City of Pensacola change and as new pest management products and techniques become available. The City of Pensacola Parks and Recreation Director will be notified whenever this document is substantially revised or altered.

### **Application of Pesticides or Chemicals**

When it is determined that pesticides or chemicals are needed for pest management on athletic fields, only products registered for use in the State of Florida will be applied with strict adherence to label directions. Applications will be undertaken only qualified staff. No pesticides or fertilizers will be used within 150 feet of any known critical environmental features or streams.

### **Notification**

Appropriate signs and notifications will be posted on or around athletic fields notifying the public prior to pest management activities that involve application of pesticides, herbicides or other potential chemical applications that could be harmful to humans. Appropriate efforts will be made to eliminate individuals coming in contact with any such applications to athletic fields within manufacturer specifications.

### **Recordkeeping**

A log book of all pest sightings and pest management activities will be kept in the office of the Ball Crew Operations Supervisor 2130 Summit Blvd , Pensacola, FL 32503. This log will be kept current by and will be available for public viewing upon request. Additionally, any time a pesticide is used for pest management purposes, a copy of the pesticide label, as well as the pesticide's Material Safety Data Sheet (MSDS) will be kept on record in an easily accessible location as a reference for applicators on proper use, storage and safety. The Florida Department of Agriculture and Consumer Services Division of Agricultural Environmental Services Suggested Pesticide Recordkeeping Form is provided in **Appendix B** of this IPM Plan.

### **Training**

City of Pensacola Parks and Recreation staff will be provided with training on the IPM policy during annual update training. Training will include the rationale for the IPM policy and program and specific elements including use of the pest-sighting log and prohibition on pesticide applications by non-certified individuals.

Additionally, designated will receive advanced training on identifying pest infestations and pest-conducive conditions. This training will improve the ability of staff to oversee compliance with City of Pensacola IPM policy and plan.

# APPENDIX A

<b>Pest Name:</b>	<b>Actions take to control the problem</b>						
<b>Pest Location:</b>							
<b>This pest is a (circle all that apply)</b>	<b>Apply Preventative Methods</b>	<b>Monitor Pest Population</b>	<b>Identify Natural Enemies of the Pest</b>	<b>Determine Injury and Action Level</b>	<b>Monitor for Pest</b>	<b>Treat the Problem using IPM Tiered Procedures</b>	<b>Follow Up</b>
Heath Concern							
Safety Issue							
Nuisance							
Aesthetic Concern							
Other:							

# APPENDIX B



NICOLE "NIKKI" FRIED  
COMMISSIONER

Florida Department of Agriculture and Consumer Services  
Division of Agricultural Environmental Services

**SUGGESTED PESTICIDE RECORDKEEPING FORM**

Telephone Number (850) 617-7880

FDACS recommends recordkeeping for all pesticide applications regulated by Chapter 487, F.S., using this form or similar format. When properly completed, this form meets the recordkeeping requirements for restricted use pesticides and the central posting requirements for the federal Worker Protection Standard.

Licensed Applicator (R) \_\_\_\_\_ License No. (R) \_\_\_\_\_ Property Owner Authorizing Application (R) \_\_\_\_\_

1. Date 2. Start Time 3. End Time All R/W	Actual applicator if different from above (include license no. if licensed) (R)	1. Location/Description of Treatment Site (R/W) 2. Target Site or Crop (R)	Total Size of Treatment Area (R)	1. Pesticide Brand Name (R& W) 2. EPA Reg. No. (R/W) 3. Active Ingredients (W)	Total Amt. of Pesticide Applied (R)	Application Method (R)	Restricted Entry Interval (W)

(R) = For Restricted Use Pesticides (W) = For Worker Protection Standard Requirement (Vea dorso para definición de términos en español)  
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November 10, 2020

Review of Integrated Pest Management (IPM) Plan  
Athletic Fields  
City of Pensacola

Since this is a living document, I like that it is at least a starting point. Any new plan will take some time to settle in and become perfected. My comments are listed below, based upon my experience with IPM through Extension.

Page 1 -Detection and Monitoring

Typically, IPM (from Extension) consists of the following steps:

- Prevent problems through sound cultural practices including proper water, fertilization, and placement of plants

- Monitor the area for signs of problems

- Decide if a problem requires action – is there a level of tolerance for the imperfect?

- Intervene using a non-toxic or least toxic approach

- Evaluate the effectiveness of the intervention

- Return to monitoring if successful or decision making if not.

The City of Pensacola plan varies slightly in that it defaults to some type of treatment or appears to do so. Having said that, treatment could also mean an intervention, such as hand picking a problem away.

Step 3 – apply preventive methods to reduce the occurrence of pest problems –

Is “preventive methods” referring to cultural practices or treatment options? If it refers to cultural practice changes, I feel that should be specifically stated.

Page 2 - Preventive Measures and Treatment

Bullet 2- Physical: Other lawn problems: “...by pruning tree branches to minimize...”

This is an IPM document but since pruning is being referenced as a cultural practice method, does it need to be specified that reference to proper pruning techniques, including cut types, appropriate time of year, and minimizing damage or opportunity for disease to set will be conducted?

Bullet 3 – Cultural: the last sentence refers to watering “...during the summer before sunrise or after sunset to reduce...” It is never recommended to water after sunset because the water that remains on the turf will increase the likelihood of fungal growth. Based upon Extension recommendations, watering should always be performed at a time when the excess water can dry from the surface of the turf to reduce the opportunity for a fungal infection to set in.

Page 3 – Preventive Measures and Treatment (con't.)

Bullet 3 – Fertilization: there is no mention of proper fertilization timing. Generally, fertilizer is recommended between April 15 and October 15, to coincide with the rise and decline in soil temperature. Soil cooler than 70F, generally before April 15 and after October 15, is unable to make nitrogen available to the plants. Hence, it is a wasted product and wasted money when applied at the wrong time. Additionally, there is no mention of any state or federal regulations around the application of chemical fertilizers, although there is a general mentioned on page 4 regarding the application of pesticide and chemicals.

Page 4 – Preventive Measures and Treatment (con't.)

Chemical > Weeds – using vinegar will burn back the leaves, but generally does not kill the plant. This may result in bare patches in which the weed will regrow, or a new weed take hold faster than the turf is able to fill in.