Jacksonville Tree Commission Facilitator Strategic Planning Committee

Thursday August 4, 2022 – 1:30 PM 609 St. John's Bluff Rd, N, Conference Room 1

Commissioners:

Susan Fraser Mike Robinson Rhodes Robinson Advisors:

Susan Grandin Justin Gearhart Jose Regueiro

Staff: Cindy Chism

AGENDA - Revised

Order of Agenda is Subject to Change

- 1. Call to Order Ms. Fraser
- 2. Roll Call Cindy Chism
- 3. Old Business
 - a. Status of MOU with KBT & Associates
 - i. Confirm parties to the MOU
 - b. Identification of Partners and Stakeholders
 - c. Summary of Available Data and Studies Green Infrastructure/ Stormwater Case Study

Tree Inventory

Plan IT GEO

- d. Status of Pilot Project to establish Cost of City-wide Tree Maintenance
- e. Description of Existing Use of Maintenance Funds

4. New Business

- a. Description of Existing Implementation of Tree Commission Duties
- b. Cedar Rapids ReLeaf Plan
- c. Funding for Potential Tree Master Plan/ Study
- 5. Adjournment

<u>Jacksonville Tree Commission</u> <u>Facilitator Strategic Planning Committee Minutes</u> Thursday, August 4, 2022 – 1:30 PM Approved August 17, 2022

609 St. John's Bluff Rd, N, Conference Room 1

Attendees:

Rhodes Robinson, Tree Commissioner Susan Fraser, Tree Commissioner Justin Gearhart, City Arborist Jameka Smith, Landscape Architect Fred Pope, Scenic Jacksonville John November, Public Trust Susan Caven, Scenic Jacksonville Nancy Powell, Scenic Jacksonville Lad Hawkins, Scenic Jacksonville Bruce Andrews, Greenscape

- Cindy Chism, Staff
- 1. Call to Order Ms. Fraser
- 2. Roll Call Cindy Chism

3. Old Business

- a. Status of MOU with KBT & Associates is in OGC being written.
 - i. Confirm parties to the MOU Ms. Fraser spoke with the Executive Director of the Builder's Association who confirmed participation.
 - Ms. Powell asked what the necessary total was. Ms. Fraser said for 1 session the cost is \$3000 for 2 the cost is \$3500. Mr. November suggested planning for 2 sessions. Ms. Fraser agreed, 2 sessions will probably be necessary.
 - iii. Mr. November asked how many non-profits contributing? Ms. Powell said there are 3 present. Mr. November suggested each non-profit contribute \$250. Ms. Powell pointed out Sierra Club was not present. Ms. Fraser added that any individual who wants to boost the contribution of the non-profit could contribute to the non-profit and let them funnel the funds through.
 - iv. Mr. Pope asked how many hours does the \$3500 buy? Ms. Fraser said it's 2 4-hour sessions with a report at the end. The City is responsible for advertising, recording, and finding the location.
 - v. Ms. Powell said they would commit by the next Tree Commission meeting.
 - vi. Mr. Pope asked if 3 sessions might be more probable. Ms. Fraser said the MOU is for the scope, if we find another is necessary, it can be amended. Getting another \$500 is probably not difficult if we get to that point.

- vii. In speaking with Mary Littlepage, the first session will be informational, so everyone starts with the same information base. Then gathering input from people. Then there may be a gap of a few weeks so people can digest what they've heard. The second session is the decision-making, and goal setting. Ms. Powell suggested 3 sessions are going to be required. Also, going into that first meeting, the homework must have been done.
- viii. Mr. Pope asked if Susan Grandin was writing the MOU? Ms. Fraser said it had been assigned to another attorney at OGC. Mr. Pope continued, make sure that the contract includes the ability to amend it without having to rewrite the by OGC. Ms. Fraser suggested insert language which says something like "additional meetings may be added with approval by X person with sufficient funding."
- b. Identification of Partners and Stakeholders (Attachment A)
 - i. There is a list if anyone has suggestions for additions, please email them to Ms. Chism.
- c. Summary of Available Data and Studies are there anymore out there?
 - Green Infrastructure/ Stormwater Case Study done in 2019
 - Tree Inventory completed by Arbor-Pro in 2019
 - Plan IT GEO web-based tool. Ms. Fraser met with Bill Killingsworth, Director of Planning & Development. He said his department would take the 5,000 permits from the last 5 years, geo-code the address of the permit, identify the number of trees removed, amount of land in the permit, the fees paid, etc.; all the data they can give us, by year, by Council District.
 - Additional data source: Assessment of Urban Canopy dated 2017
- d. Status of Pilot Project to establish Cost of City-wide Tree Maintenance
 - i. Mr. Gearhart said the project has been sent to Procurement. Ms. Fraser suggested this means a scope of work has been written and phone calls are being made asking if this was on the street what might your bid look like. Mr. Gearhart will check with Dave McDaniel to determine what the status of this project is. He will also bring a copy of what Procurement is working with to the next meeting.
- e. Description of Existing Use of Maintenance Funds (Attachment B) Justin Gearhart
 - This is a brief synopsis of how the funds are obtained from the Tree Funds for trimming activities and what those activities include. These requests are all reactive, based on requests from citizens and/or staff. Mr. Gearhart will revise the handout to include the process on how the funds are distributed to the vendors doing the work and how trees are selected for trimming. A reference to the authorizing ordinance will also be included.

4. New Business

- a. Description of Existing Implementation of Tree Commission Duties (Attachment G)
 - i. Ms. Fraser asked the participants to review the Tree Commission duties and give their opinion on what duties and objectives the Commission is doing, not doing at all, doing well, or needs to improve on.
 - ii. Ms. Powell said there are categories for strategic planning, 1) stormwater management and drainage; 2) heat islands may or may not have flooding or may be parking lots and 3) street trees for heat and walkability. Ms. Fraser agreed, the broad categories and what information we have then what's missing.
 - iii. Mr. Hawkins pointed out Code Enforcement is one of the areas which is missing. There are thousands of parking lots all over the City that have trees in them, some don't have trees which are supposed to have trees, we need Code Enforcement. The City Code Enforcement people do sweeps of neighborhoods and determine there are so many derelict cars, but no one ever sweeps and says you have crepe murdered every crepe myrtle on Atlantic Blvd. and these were planted to meet the tree ordinance and they shouldn't be trimmed that way and we are going to fine you.
 - iv. Ms. Fraser suggested the precursor to better code enforcement is better education. How do we teach not only our City Council elected people who decide how code enforcement works and how it gets funded, and the public who have private land, we really have to engage in what education is. Why are trees important, why do you plant trees near a streambed to help with flooding? Is that intuitive or counter intuitive. Part of this is all the things we want to do and if we are not doing them, it's not because people know the benefit and don't want to do it, most of it is they don't understand how this small contribution of a tree can make a big contribution to solving your problem.
 - v. Ms. Caven agreed but said it's a larger issue. We are city that cares about our tree canopy, what can we do to make it better? For instance, Greenville, SC, "Proudly a Tree City." They are saying they value their tree canopy. That is an important thing to our city in every way, economically, resilient, heat island, every category a strong and good tree canopy makes a difference, makes the city better.
 - vi. Ms. Fraser agreed but said people won't understand trees can do all of that without educating them. They must be shown the benefits on multiple levels. Ms. Caven added but the codes aren't being enforced. The property owner who owns the parking lot that just removed all the trees, has no incentive to replace those trees because the code can't or won't be enforced and he won't be fined for removing them. Ms. Fraser said agreed, but the city does have a limited code enforcement budget and must focus on those things which are important. If we educated those

that decide what's important, then the direction can change. But it must come from the top down.

- vii. Mr. Hawkins asked if the Tree Fund could pay for a code enforcement officer just for enforcing the landscape code about trees. Ms. Fraser said no, the Tree Fund couldn't pay for a person now. The Tree Commission doesn't plant trees to meet code. We only expend funds which are collected from the removal of trees. The City has a code which says you'll plant 10 trees. The City decides whether to enforce the actions or lack thereof as land development regulation. It has nothing to do with the Tree Commission.
- b. Cedar Rapids ReLeaf Plan <u>https://treesforever.org/releaf/</u>. in the August APA magazine. It's too big to email but look it up online. It's got lots of public involvement, consensus building, policy building, funding. This may be an example of what's going on nationally. It may be a good outline for us to follow or use as a jumping off point.
- c. Funding for Potential Tree Master Plan/ Study Susan Fraser
 - i. As a Mayor's Commission the Ordinance Code Sec. 50.106 says, "we shall submit an annual legislative budget for public funds for which it deems necessary for performance of its functions." So, the Commission can say, for instance, we need 2 staff people and funds for a study. It can be rejected; however, we have duties and cannot accomplish them with the resources we have. The budget cycle has past for this year however any change may be accomplished with a sponsor, and we have CM Salem as our liaison. There is an avenue for resources, we must sell that we need it just like everyone else asking for funds. The more we use strategic session to say what we are doing is important, its part of what the City wants to accomplish, resiliency etc., we have access to a large amount of funding and to frivolously spend it without resources is irresponsible.
 - ii. Mr. R. Robinson said we need to think about things we can do as a Commission the way we are now. Which is what we have been doing. The Facilitator needs to be educated that we don't have \$25 million dollars to play with, it must be for tree replacement and its very restricted. A lot of these things that are going to wind up being on a want list and from the input we get, we cannot use that money for that purpose and eventually we will have to ask for more if we do an education program who will do that. If we need more staff to support what we want to do where does that come from. Those kinds of things wind up being impedances to progress when working with City budgets where everything is tight. The Facilitator needs to understand all of that before they conduct the meeting. This is a playground to figure out everything we can do with trees in the City, we are restricted to a pretty narrow scope but need money to do more.

- iii. Ms. Powell responded this is back to the categories. How do we best use that money from a strategic proactive standpoint. There are other pots of potential money we could find. There are a lot of non-profit partners from a communication standpoint, who have voices and influence. It is a challenge, but Ms. Littlepage will be able to help.
- iv. Ms. Fraser continued, in all these categories which may be discussed at a strategic session, what can we do today with the funds we have today. Staffing is a different level, if we have money for trees can we compliment what the Resiliency Team is doing, can we compliment what Parks & Rec are doing. But to make that work we need funds for more staff. Then there is another category, if there is a large budget what might fall into that category. So, there are can-dos today and then what can we do if we politically create the support for X and on a budget, level create the support for X. What can we do practically with a little bit of help from more staff and what might be done if people think it's important. So do what we are doing well with the funds we have and then be able to say of this list of duties there's no funding for that. If you want us to do it, we are capable, but we don't have the resources.
- **5. Adjourned.** Ms. Chism will send out a doodle poll for the last week of August for the next meeting.

City of Jacksonville Tree Commission Public Partners

Neighborhoods Department

Brian Mosier, Director 214 Hogan Street, N., 7th Floor Jacksonville, FL 32202 E-mail: <u>COJNeighborhoods@COJ.net</u> Phone: 904-255-7200

- Environmental Division
- Housing & Community Development
- Neighborhood Blight

Public Works Department

John Pappas, P.E., Director William "Bill" J. Joyce, P.E., Operations Director 214 N. Hogan Street, 10th Floor Jacksonville, Florida 32202 (904) 255-8786

- Right of Way and Stormwater Maintenance Division
- Real Estate Division
- Public Buildings Division

Planning & Development Department

William B. Killingsworth, Director Ed Ball Building 214 North Hogan Street, Suite 300 Jacksonville, Florida 32202 (904) 255-7800

Development Services Division Resiliency Division

Office of Economic Development

NAME

117 West Duval Street, Suite 275, Jacksonville, FL 32202 (904) 255-5444

Downtown Investment Authority

NAME

Downtown Investment Authority 117 West Duval Street, Suite 310 Jacksonville, Florida 32202 (904) 255-5302

Jacksonville Electric Authority

Joe Anderson JEA Forester ANDEJS@JEA.COM

Attachment A

Non-Profit Partners

Greenscape Lisa Grubba lisagrubba@greenscapeofjax.org

Public Trust Law John November john@publictrustlaw.org

Scenic Jacksonville Nancy Powell nancy@scenicjax.org

Stakeholders

Northeast Florida Builders Contact

Tree Fund Trimming Spending

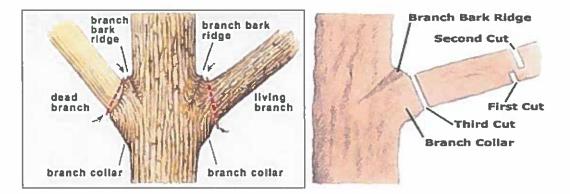
In the current fiscal year, Mowing and Landscape received \$319,750 from tree fund for tree trimming.

This amount comes from the current fiscal year in the below calculation:

(\$1,129,000 general fund + \$150,000 stormwater (trees in ditches)) x 25% = \$319,750 (tree fund tree trimming amount)

Tree Fund Trimming Activities

Collar cuts – proper cut to remove a branch that allows tree to heal. Often the removal of the branch is due to preventative pruning or due existing damage or decay of branch.



Raise canopy to avoid vehicle damage- avoiding damage prolongs tree and encourages upward growth.



Trimming of deadwood- Removal of deadwood helps keep the tree longer and slows the spread of decay. Often a tree will be assigned for deadwood removal instead of complete removal in effort to prolong the life of the tree. When a crew is at a tree for other reasons, they will remove deadwood as well.



Pruning of structural defects- Structural defects often pointed out for trimming to prevent eventual failures or damage to tree. Prolongs the life of the tree. Some of the defects may include co-dominance, lack of central leader, weak branch unions and disease/pest issues.

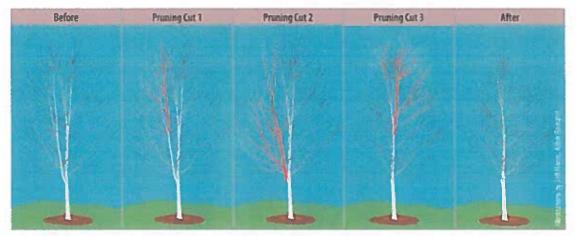


Figure 10. Pruning to improve poor branch structure may be completed over multiple sessions. Pruning goals may be reached in two growing seasons or it may take several years since the pruning dose will be determined by the species, age, and health of the tree.

Jacksonville Tree Commission

SECTION 94-105, Ordinance Code

The Commission is established for the following general purposes:

- (a) To study and make recommendations to the City Council, Mayor's Office, City Staff, and community stakeholders with respect to the planting of trees and the health of the City's tree canopy.
- (b) To formulate an overall plan for the planting of trees and the health of the City's Tree Canopy and thereafter to annually review the plan and report recommendations to the Mayor's Office.
- (c) To act as a motivating and coordinating body to encourage joint public and private participation in the planting of trees and the health of the City's tree canopy
- (d) To review and make recommendations, if necessary, to the Council concerning the City's tree protection and landscape regulations.

SECTION 94-106, Ordinance Code

In implementing the purposes under this chapter, the Commission shall have the following duties:

- (a) To act as a coordinator for programs, projects, and activities related to planting projects and the health of the tree canopy between all public and private entities;
- (b) To review expenditure proposals and plans for planting projects;
- (c) To prioritize, with the input of District Council members, proposed planting projects based on established criteria for recommendation to the Council, and, when requested, the Commission may also make recommendations on other proposed tree planting projects;
- (d) To formulate a recommended priority project list, including an estimated implementation cost for each item, for tree planting and canopy maintenance, and to thereafter annually review the priority project list and report recommendations to the Mayor's Office;
- (e) To help coordinate the maintenance of an inventory of the urban tree canopy with an emphasis on historic trees, exceptional specimen trees and other unique environmentally significant trees within the City;
- (f) To assist in the establishment of educational and outreach programs to encourage proper management and maintenance of trees on private property in the City;
- (g) To conduct research studies, collect and analyze data and prepare maps, charts, and plans for the accomplishment of its purposes;
- (h) To identify issues relative to the health and protection of public trees and recommend solutions to problems identified;
- (i) To recommend to and help develop opportunities for the City's grant writing office for grants and solicitation of donations to support the City's tree canopy;
- (j) To perform an annual audit of funded projects, the status of the inventory, and tree permits submitted to the City to be included in an annual report to the Mayor's Office and City Council; and
- (k) To develop and maintain a tree canopy and existing tree inventory.

TREE COMMISSION'S GOAL and OBJECTIVES

Formulate an overall plan for the planting of trees and the health of the City's Tree Canopy and thereafter annually review the plan and report recommendations to the Mayor's Office.

OBJECTIVE 1. Project Priorities

- Prioritize, with the input of District Council members, proposed planting projects based on established criteria for recommendation to the Council, and, when requested, the Commission
 may also make recommendations on other proposed tree planting projects
- Formulate a recommended priority project list, including an estimated implementation cost for each item, for tree planting and canopy maintenance, and to thereafter annually review the priority project list and report recommendations to the Mayor's Office

OBJECTIVE 2. Establish Criteria for Tree Planting

Develop and maintain a tree canopy and existing tree inventory.

OBJECTIVE 3. Establish Priorities for Canopy Maintenance

- Help coordinate the maintenance of an inventory of the urban tree canopy with an emphasis on historic trees, exceptional specimen trees and other unique environmentally significant trees within the City
- Identify issues relative to the health and protection of public trees and recommend solutions to problems identified

OBJECTIVE 4. Establish Annual Reporting / Review with Recommendations

 Perform an annual audit of funded projects, the status of the inventory, and tree permits submitted to the City to be included in an annual report to the Mayor's Office and City Council

OBJECTIVE 5. Education and Outreach

- Assist in the establishment of educational and outreach programs to encourage proper management and maintenance of trees on private property in the City
- Act as a motivating and coordinating body to encourage joint public and private participation in the planting of trees and the health of the City's tree canopy
- Recommend to and help develop opportunities for the City's grant writing office for grants and solicitation of donations to support the City's tree canopy

OBJECTIVE 6. Manage authorized programs, projects and activities

- Act as a coordinator for programs, projects, and activities related to planting projects and the health of the tree canopy between all public and private entities
- Review expenditure proposals and plans for planting projects

Proposed Plan to Implement Objective 1. Project Priorities

IDENTIFY AVAILABLE DATA SOURCES, COLLECT AND ASSEMBLE (SUMMARIES) FOR USE IN DEVELOPMENT OF IMPLEMENTING STRATEGIES/ MEASURABLE POLICIES

Existing Data

- 1. Identify data (new and available) necessary to support development of measurable strategies/ programs to implement Objective 1
 - Internal data sources: Commission data, City Department data,
 - External data sources: External agency data, public source data
 - Public Participation data: Reports/data from the public (individuals or entities)
- 2. Proactively solicit relevant data from City Departments.
- 3. Summarize and cross reference Internal and External Data as maps, text and spreadsheets.
- 4. Solicit Public Participation Data through media and other channels. Confirm sources and conclusions as appropriate; summarize and assemble.

New Data

- 1. Identify new data required to support development of measurable strategies/ programs to implement Objective 1.
- 2. Identify resources necessary to collect, assemble and analyze New Data. Identify New Data as Necessary or Desirable to proceed with development of measurable strategies/programs for Objective 1.
- 3. Assign resources to collect, assemble and analyze New Data identified as necessary.
- 4. Identify timeline to complete New Data collection, assembly and analysis.

IDENTIFY STAKEHOLDERS

Existing Partners

- 1. Identify Existing Partners (Non-profit applicants, City Departments, known interested parties)
- 2. Develop announcement of TC's intent to host workshop(s) to achieve Objective 1 and invite participation in the workshop(s) and development of data in advance of scheduled workshop session(s).

New Partners

- 1. Develop PR/ media approach to seek new partners. Identify potential New Partners.
- 2. Develop announcement of TC's intent to host workshop(s) to achieve Objective 1 and invite participation in the workshop(s) and development of data in advance of scheduled workshop sessions.

FACILITATOR

- 1. Identify the general scope of work to be provided. Identify point in the process where the Facilitator is retained.
- 2. Identify a facilitator and retain for identified scope of work.

Proposed Plan To Implement Objective 1. Project Priorities

PLAN AND SCHEDULE WORKSHOP(S)

Scope

- 1. In coordination with the Facilitator, identify the general scope of the workshop session(s).
 - a. Should initial workshop(s) be used to establish broad strategies and future (later) sessions focus on the identified strategies?
 - b. What is the desired product of the Workshop(s)? Detail sufficient to support legislation required/desired?
- 2. Outline format, duration, location requirements (legal and technical support), time of day, etc. Refine as additional information is developed.

Administration -Schedule, Location and Notice

- 1. In coordination with the Facilitator and based on availability of Existing Data and necessary New Data and analysis, determine appropriate date(s) for Workshop session(s).
- 2. In coordination with the Facilitator, identify the appropriate location for Workshop session(s).
- 3. Identify and address legal requirements for notice and participation.

Proposed Schedule for Action April and May 2022 Tree Commission Meetings

Actions for April 2022 Tree Commission Meeting

- 1. Discuss Proposed Plan to Implement Objective 1. Project Priorities.
- 2. Review proposed timeline/ actions for May 2022 Tree Commission Meeting and approve as presented or with revisions.
- 3. Direct Staff to identify available sources of Tree Commission data (and known City Department data) and provide electronic links to Tree Commission members and interested parties two weeks prior to the May 2022 TC meeting.

Activities prior to May 2022 Tree Commission Meeting

- 1. Review Proposed Plan to Implementation Objective 1.
- 2. Review Objective 1 and identify data that would be necessary or desirable to review prior to establishing strategies and measurable policies in support of the Objective. Identify possible sources of the identified data; if New Data, describe in sufficient detail to allow an assessment of its availability and level of effort to collect and analyze.

Actions for May 2022 Tree Commission Meeting

- 1. Approve the Plan to Implement Objective 1.
- 2. Approve an initial list of necessary and desired data to support development of strategies and measurable policies for Objective 1. Request Staff identify available data for the June Tree Commission Meeting and identify outstanding data needs at the June meeting of the TC.

Jacksonville I-Tree Eco Sample Inventory Prepared by ArborPro, Inc. 2019

The project consisted of a sample inventory of trees within City maintained rights of way for use in extrapolating the data to:

- estimate the resources needed to provide long-term maintenance of city street trees and
- quantify and monetize the annual ecosystem benefits provided by city street trees

Data Collection

The original goal was to sample 10% of the street segments within the City; budget constraints adjusted this to 5% of the city street segments. The actual data collected was based on 3.44 percent of the city's street segments.

ISA Certified Arborists collected the data in 2019.

Analysis

The report summarizes the data collected for the sample and as extrapolated to the entire city street tree population for the following:

- Species Distribution
- Leaf Area
- Size Characteristics
- Condition (need for maintenance/pruning)
- Recommended Maintenance Level (Prune-Critical, Prune, Remove-Critical, Remove and no Trim)

Ecosystem Benefits

The report identifies the benefits of the sample and as extrapolated to the entire city street tree population for the following:

- Pollution Removal
- Carbon Storage
- Oxygen Production
- Avoided Runoff
- Shading of Buildings

Comparison to Other Jurisdictions

The report compares other cities to each other in the following areas on a City Total and Per Acre of Land Area basis:

- % of Tree Cover
- # of Trees
- Carbon Storage (tons)
- Carbon Sequestration (tons/year)
- Pollution removal (tons/year)

Summary 2019 Tree Inventory Report City of Jacksonville

Recommendations

The report makes general recommendations for air quality improvement in the areas of:

- Temperature reduction and other microclimate effects
- Removal of air pollutants
- Emission of volatile organic compounds (VOC) and tree maintenance emissions
- Energy effects on buildings
- Oxygen Production
- Avoided Runoff

The report ties identified strategies to results of successful implementation of the strategy.

<u>Maps</u>

The report includes maps of:

- the final sample locations
- Treeless Segments
- Unused Sample Segments

The Report is available at <u>https://www.coj.net/departments/public-works/urban-</u><u>forestry/education</u> under the City of Jacksonville Street Tree Inventory Report link.

USE OF REPORT DATA AND FINDINGS BY TREE COMMISSION

The report may assist the Tree Commission in identifying future priorities and programs:

- 1. Does the current distribution of tree species meet the goals of the Commission and the City? Does the data guide policy level objectives for species distribution city-wide? By sub-area?
- 2. Does the identification of Treeless Segments of City rights of way guide policy level priorities to introduce trees where none are located?
- 3. Does the data on leaf area guide policy level objectives for the selection of species overall? By location (ie. within a right of way)?
- 4. Do the size characteristics of the existing tree canopy guide policy level decisions related to focused maintenance to insure the health of smaller trees, leading to a canopy with better size distribution?
- 5. Does the specific data as to the condition of the existing canopy (80% good/fair) and recommended maintenance (74.3% No Trim recommendation) allow the Commission to focus efforts related to tree trimming? Is tree trimming as a general benefit to tree health eligible for funding?
- 6. The stated purpose of the report is to "estimate the resources needed to provide long-term maintenance of city street trees". How has the report supported this effort?
- 7. Does the data in the Report support the Tree Commission's influence over the method of disposal of tree debris to limit the release of stored carbon?
- 8. How do the different ecosystem benefits evidenced by different tree species guide policy level objectives related to pollution removal, carbon storage, oxygen production, avoided runoff, and building energy use?

Jacksonville I-Tree Model

The City is enrolled in the i-Tree Design Tool program. The i-Tree Model allows the analysis of the specific address entered to estimate individual tree benefits in terms of carbon dioxide, air pollution, stormwater impacts and energy savings. Buildings on a parcel may be drawn and specific recommendations produced. This tool is hosted on a third party website:

https://design.itreetools.org/

Welcome to i-Tree Design! v7.0

This tool helps you estimate individual tree benefits in terms of carbon dioxide, air pollution, stormwater impacts and energy savings.

How to use it:

- plot a tree or planting location on a map,
- select its species,
- enter trunk diameter or circumference, and
- select the general condition of the tree.

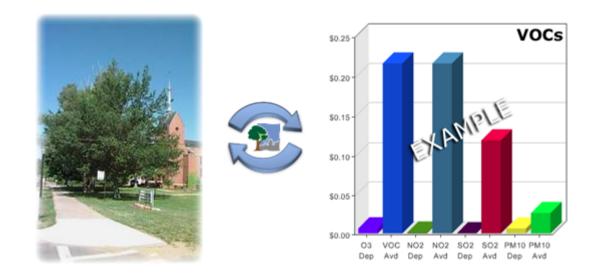
If you take the additional step of sketching the outline of a nearby house, you can see how your trees impact building energy use.

i-Tree Design estimates tree benefits for the current year and up to 99 years in the future. Total benefits to date based on estimated tree age are also provided. Multiple trees and buildings can be modeled.



I am using a: • Laptop/Desktop C Mobile device

Enter a street address or location:



Summary 2019 Tree Inventory Report City of Jacksonville