City of Pensacola

Environmental Advisory Board

Agenda

Thursday, June 2, 2022, 2:00 PM | **Hagler/Mason Conference Room, 2nd Floor, City Hall.**

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. The meeting can be watched via live stream at cityofpensacola.com/video.

CALL TO ORDER AND WELCOME

ROLL CALL AND DETERMINATION OF QUORUM

APPROVAL OF MINUTES

1. 22-00427 APPROVAL OF ENVIRONMENTAL ADVISORY BOARD MEETING MINUTES OF MAY 5, 2022.

Recommendation: That the Environmental Advisory Board approve the meeting minutes from the May 5, 2022 EAB meeting.

Sponsors: Kristin Bennett

Attachments: *EAB Minutes 05.05.2022*

PRESENTATIONS

SUSTAINABILITY COORDINATOR COMMUNICATIONS

ACTION ITEMS

2. 22-00637 INTEGRATED PEST MANAGEMENT PLAN (IPM) - REVIEW AND RECOMMENDATION

Recommendation: That the Environmental Advisory Board (EAB) review, holistically, the city's current IPM and make recommendations regarding the development of an IPM suitable for use citywide, to include indoor applications. Further that any recommendations be sent to City Council within 60-days from the date of EAB's June Meeting.

Sponsors: Kristin Bennett

Attachments: *Referral to EAB- IPM Plan- Myers- Memo.docx (001)*
City's IPM Plan
IPM Plan For Athletic Fields_KF

DISCUSSION ITEMS

3. 21-00966 REVIEW OF SECTON 12-6-1 TO 12-6-3 OF THE TREE AND LANDSCAPE ORDINANCE

4. 21-00975 TREE ORDINANCES AFTER SECTION 163.045; CONTROVERSIES AND STRATEGIES - POWERPOINT

Attachments: *Lindsay Tree Ordinances PPT - corrected*

5. 22-00638 WATER TESTING AT BRUCE BEACH

Sponsors: Kristin Bennett

Attachments: *Source Tracking at Bruce Beach Presentation*
Bruce Woody Presentation re Bruce Beach

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

File #: 22-00427 | Environmental Advisory Board | 6/2/2022

ACTION ITEM

SPONSOR: Kristin Bennett, Chairperson

SUBJECT:

APPROVAL OF ENVIRONMENTAL ADVISORY BOARD MEETING MINUTES OF MAY 5, 2022.

RECOMMENDATION:

That the Environmental Advisory Board approve the meeting minutes from the May 5, 2022 EAB meeting.

SUMMARY:

On May 5, 2022, the EAB held a meeting, this item seeks approval of the minutes from that meeting.

STAFF CONTACT:

Don Kraher, Council Executive

ATTACHMENTS:

1) EAB Minutes 05.05.2022

City of Pensacola

Environmental Advisory Board

Minutes

Thursday, May 5, 2022, 2:00 PM **Hagler/Mason Conference Room, 2nd floor**

Members Present: Kristin Bennett, Chair, Kelly Hagen, Vice Chair, Neil Richards, Katie Fox, Blase Butts, Katie Dineen, Drew Dittmar

Members Absent: Kyle Kopytchak, Jay Massey

Others Present: Don Kraher, Council Executive, Sonja Gaines, Council Assistant, Mark Jackson, Sustainability Coordinator, Keith Wilkins, Christian Wagley

CALL TO ORDER AND WELCOME:

The meeting was called to order by Chair Bennett.

ROLL CALL AND DETERMINATION OF QUORUM:

A quorum was established.

APPROVAL OF MINUTES:

1. 22-00427 APPROVAL OF ENVIRONMENTAL ADVISORY BOARD MEETING MINUTES OF APRIL 7, 2022.

Recommendation: That the Environmental Advisory Board approve the meeting minutes from the April 7, 2022 EAB meeting.

Sponsors: Kristin Bennett

Attachments: *EAB Minutes 04.07.2022*

Member Dineen moved for the approval of the April 7, 2022 minutes, seconded by Member Dittmar. The motion carried 7 – 0, with two members absent.

PRESENTATIONS:

There were no presentations. Chair Bennett indicated that if members had any suggestions for educational moment presentations to be made to the Board to email the contact information to the Council Executive so that it can be included on the agenda. The list of potential subject matter experts on the tree ordinance submitted by a board member will be considered under the discussion item.

SUSTAINABILITY COORDINATOR COMMUNICATIONS:

Sustainability Coordinator provided updates on the recent South East Sustainability Directors network conference he attended, the Carpenter Creek joint meeting with Wood and the county, and the PLACE SOR community dialogue. He provided a flyer on the Climate Smart Floridians class that will be coming up in August. He just started a new partnership with Keep Pensacola Beautiful to do ink and toner recycling at City Hall. The Airport has a new parking lot coming on line, with eleven charging stations included. The tree replacement program that is happening in all the parks has 190 trees planted now out of the little over 300. The urban forest and tree canopy survey kickoff meeting will be held next week, with the consultant. The solar feasibility study is moving along and have identified one port building, the fleet garage building, Bayview and Vickrey Community Centers as buildings to do structural analysis for solar projects. The second meeting on the re-imagine Jackson Street Project which is like a complete streets concept, will be on May 24th. The Transportation Action Plan will be going to City Council in May for approval of a contract, to come up with a transportation plan as a whole in the City, to incorporate more bike paths, etc. The Transportation Planner will be doing a bike ped presentation for Bike Pensacola, on facebook live on May 10th.

With regard to the sites selected for the solar feasibility, the port site and the fleet garage site would be campus projects, and would have solar panels placed on the roofs to cover all of the utility usage on that site. Every meter on that site would be covered. As part of the analysis, they did consider net metering.

ACTION ITEMS:

There were no action items.

DISCUSSION ITEMS:

2. 21-00966 REVIEW OF SECTON 12-6-1 TO 12-6-3 OF THE TREE AND LANDSCAPE ORDINANCE

Vice Chair Hagen opened discussion on her idea for having subject matter experts participate in the review process to offer their expertise as the board considers various revisions to sections of the ordinance. As an example, the tree grower could address mitigation costs, what the actual cost is for replacement trees, address types of trees, native vs. non-native, maintenance requirements of trees, etc. Utilizing these experts as a resource because they might have a different perspective on what is being said in the section that is being discussed. They would not be voting, just giving an academic, environmental or professional perspective.

Council Executive clarified that it would not be a set presentation. Whoever is proposed would be sitting at the table and be engaged in the conversation and overall discussion.

Further discussion occurred on getting public input and having a public workshop. Input is needed from developers and citizens who are impacted and affected by the tree ordinance.

Proposed changes to the ordinance were submitted by Chair Bennett and Member Fox. The Board discussed Sec. 12-6-1. Purpose. The consensus of the Board was to use the concise language, **"The purpose of this chapter is to establish regulations addressing the preservation and permitted removal of trees and the establishment and maintenance of landscaped areas within the City. This chapter pertains to developed areas and to new development."** as the purpose of Sec. 12-6-1 and decided to further consider the revisions as proposed by Member Fox, similar to the City of Tallahassee's ordinance, in considering the overall objectives.

The Board then addressed and discussed whether to leave in, remove or tweak the language of the overall objectives in the version submitted by member Fox. The consensus of the Board was to leave in **(1) To promote, protect, and enhance community ~~values~~ resources by conserving and creating a ~~more~~ balanced, aesthetically pleasing and functional environment; eliminate (2); leave in (3), striking ~~in important sites and corridors~~ and adding <u>within the city limits;</u> leave in (4) and (5)** with possible tweaks later; **and eliminate (6) (7) and (8).**

Member Dineen mentioned in reviewing the City of Fairhope's tree ordinance, they had a user friendly flow chart that enabled someone to see and understand what they needed to do and suggested that the City might want to consider doing the same, as part of an educational campaign.

The water section of the objectives does not pertain to the City and was not included. The Board then discussed the Tree Protection objectives (18) through (21) and Landscaping objectives (22) through (27). The consensus of the Board in the Tree Protection section was to leave in **(18) To encourage the preservation of trees and vegetation and to prevent unreasonable or unnecessary damage to the community's existing native tree canopy and vegetative understory; (19) To enhance the natural value of trees and vegetation which contribute to air purification, oxygen regeneration, groundwater recharge, stormwater runoff control, and abatement of noise, glare and air pollution; eliminate (20)** with possible tweaks to add shade and cooling in number (19); and leave in **(21) To protect and provide habitat for endangered, threatened and native species.** In the Landscaping objectives, the consensus of the Board was to leave in **(22) To promote vehicular and pedestrian safety and to limit physical site access to established points of ingress and egress; and (24) to ensure that the local stock of native trees and vegetation is replenished;** and to remove (23) (25), (26) and (27) and including the word "**balance" from (26)** in **(1)** of the overall objectives. With regard to (23) and (25) pertaining to buffer language, this may be covered in the body of the ordinance. Once the Board starts reviewing the other sections of the ordinance, they can determine if it needs to be listed as an objective in the tree protection or landscaping items.

Keith Wilkins commented that in some parts of the land development code, a developer will be required to provide some type of buffer and trees are considered to be part of a buffer, as well as a fence or a road. He wasn't sure what section that was in the land development code.

Council Executive indicated that he would create a clean version with the changes the Board made and forward to the Board. In reviewing Section 2 of the ordinance pertaining to zoning, etc., he will see if someone from Planning can attend and answer any questions the board might have.

Chair Bennett reminded the board that if any member has specific questions to submit them to the Council Executive, so that the staff can be prepared.

Sustainability Coordinator reminded the board that there is a lot of cross referencing with regard to the exemptions between Florida statutes, and sections of the ordinance and zoning districts.

3. 21-00975 TREE ORDINANCES AFTER SECTION 163.045; CONTROVERSIES AND STRATEGIES - POWERPOINT

Attachments: *Lindsay Tree Ordinances PPT - corrected*

No discussion of this item.

BOARD MEMBER COMMENTS:

Member Butts referenced the article in the Pensacola News Journal regarding the water contamination at Bruce Beach and wondered what role the Environmental Advisory Board has in regards to this.

Sustainability Coordinator stated that testing at Bruce Beach is regulated by the Florida Department of Environmental Health. There is a link from the City's website to their site to see what is tested. Because it is a recreational beach, they have state standards for testing.

Member Hagen stated that it is such an industrial area and she felt like it should be tested for harmful chemicals.

Member Dittmar indicated the way the beach is located, it's been cut off from a good circulatory current, it is very stagnant water. There is not enough water flow.

Chair Bennett referenced the language that established the Environmental Advisory Board and that the board would need to ask the City Council and have the City Council refer it back to the board.

Member Dineen attended the Belmont/Devillers Neighborhood meeting and they would like to see more signs posted near the water that will warn people to check the latest levels at the particular site.

Member Butts indicated that he would write something up for discussion purposes. There was another item in the newspaper about Carpenter Creek and the impact on Bayou Texar and FDOT allowing a contractor to put red clay in to support a parking lot. In one hour, Ocean Hour had 16 volunteers pick up over 1200 pounds of trash under the bridge of Carpenter Creek and Bayou Boulevard. He expressed his frustration over these issues.

Sustainability Coordinator stated that the City and ECUA have communicated on the Bruce Beach issue and there are things moving forward.

Council Executive indicated that ECUA would be making a presentation to City Council at an upcoming Agenda Conference.

PUBLIC COMMENT:

Christian Wagley addressed the board with regard to the different tree species used in more dense urban environments where there is not a lot of space to accommodate larger trees. A lot of the native trees are not suitable and some of the better ones to plant may not be native. It boils down to right plant/tree and right place. He also commented on the lateral sewer lines that are the lines on private property that connect to the sewer lines. These lines are crumbling, it is a massive problem statewide. The City has stepped up and paid for additional water testing at Bayou Texar, Sanders Beach and Bruce Beach. He also commented on the contaminants from superfund and industrial sites and they are usually found in the sediments instead of the water column.

The annual Hands Across the Sand on Pensacola Beach is occurring on May 21. The moratorium on drilling off our shores expires at the end of June and there are no other protections in place yet.

Sustainability Coordinator announced Bike to Work event on May 20 from 8 – 1 p.m at City Hall. There will be food trucks and other bike educational information.

Member Dineen reported on the great turn out at the Earth Day Festival. Any suggestions for next year's celebration are welcomed.

Member Butts announced a two part on-line workshop on managing stormwater and if interested, can register on Eventbrite. Cost is $50.

Member Richards inquired about the legislative handout and also commented on the Governor's veto of the net metering bill.

Chair Bennett indicated that it was the bill that was passed in the 2022 legislative session amending Section 163.045, Florida Statutes that is awaiting the Governor's signature.

ADJOURNMENT:

There being no further business to come before the board, the meeting was adjourned at 4:25 p.m.

City of Pensacola

222 West Main Street
Pensacola, FL 32502

Memorandum

File #: 22-00637 | Environmental Advisory Board | 6/2/2022

ACTION ITEM

SPONSOR: Kristin Bennett, Chairperson

SUBJECT:

INTEGRATED PEST MANAGEMENT PLAN (IPM) - REVIEW AND RECOMMENDATION

RECOMMENDATION:

That the Environmental Advisory Board (EAB) review, holistically, the city's current IPM and make recommendations regarding the development of an IPM suitable for use citywide, to include indoor applications. Further that any recommendations be sent to City Council within 60-days from the date of EAB's June Meeting.

SUMMARY:

On May 12, 2022, City Council referred an item to the EAB with the following recommendation and summary:

That the City Council refer to the EAB for review and recommendation, the City's Integrated Pest Management (IPM) Plan. Further that the EAB return their recommendation to the City Council within 60-days of their June meeting.

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information of the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property and the environment.

Recently the City's Parks and Recreation Department developed an IPM for Athletic Fields within the City. The purpose of this referral is to request the EAB take a holistic approach to reviewing the existing IPM and make recommendations regarding the development of an IPM suitable for use city wide, to include indoor applications.

The EAB has engaged in discussions regarding the need for a suitable citywide IPM and was instrumental in requesting the current IPM developed by Parks and Recreation.

STAFF CONTACT:

Don Kraher, Council Executive

ATTACHMENTS:

1) Referral to EAB- IPM Plan- Myers- Memo
2) IPM Plan for Athletic Fields
3) IPM Plan for Athletic Fields-KF

LEGISLATIVE ACTION ITEM

SPONSOR: City Council Member Sherri Myers

SUBJECT:

REFERRAL TO THE ENVIRONMENTAL ADVISORY BOARD FOR REVIEW AND RECOMMENDATION – THE INTEGRATED PEST MANAGEMENT (IPM) PLAN

RECOMMENDATION:

That City Council refer to the Environmental Advisory Board (EAB) for review and recommendation, the City's Integrated Pest Management (IPM) plan. Further that the EAB return their recommendation to the City Council within 60-days of their June meeting.

HEARING REQUIRED: No Hearing Required

SUMMARY:

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information of the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property and the environment.

Recently the City's Parks and Recreation Department developed an IPM for Athletic Fields within the City. The purpose of this referral is to the request that the EAB take a holistic approach to the reviewing the existing IPM and make recommendations regarding the development of an IPM suitable for use city wide, to include indoor applications.

The EAB has engaged in discussions regarding the need for a suitable citywide IPM and was instrumental in requesting the current IPM developed by Parks and Recreation.

PRIOR ACTION:

Recently the Parks and Recreation Department created an Integrated Pest Management Plan for Athletic Fields within the City.

FUNDING:

N/A

FINANCIAL IMPACT:

None

STAFF CONTACT:

Don Kraher, Council Executive

ATTACHMENTS:

1) City of Pensacola Parks and Recreation IPM for Athletic Fields

PRESENTATION: No

City Plan
11/5/2020

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, 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

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 times 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: 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: Pest Location:	Actions take to control the problem						
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 Aestheic 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 times 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

Pest Name: Pest Location:	Actions take to control the problem						
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 Aestheic 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)

City of Pensacola

222 West Main Street
Pensacola, FL 32502

Memorandum

File #: 21-00966 | Environmental Advisory Board | 6/2/2022

DISCUSSION ITEM

SPONSOR: Kristin Bennett, Chair

SUBJECT:

REVIEW OF SECTON 12-6-1 TO 12-6-3 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) (if any, will be distributed)

PRESENTATION: No

City of Pensacola

222 West Main Street
Pensacola, FL 32502

Memorandum

File #: 21-00975 | Environmental Advisory Board | 6/2/2022

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 and/or recent legislation is evaluated.

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
Assistant City Attorney
City of Pensacola, Florida
hlindsay@cityofpensacola.com
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

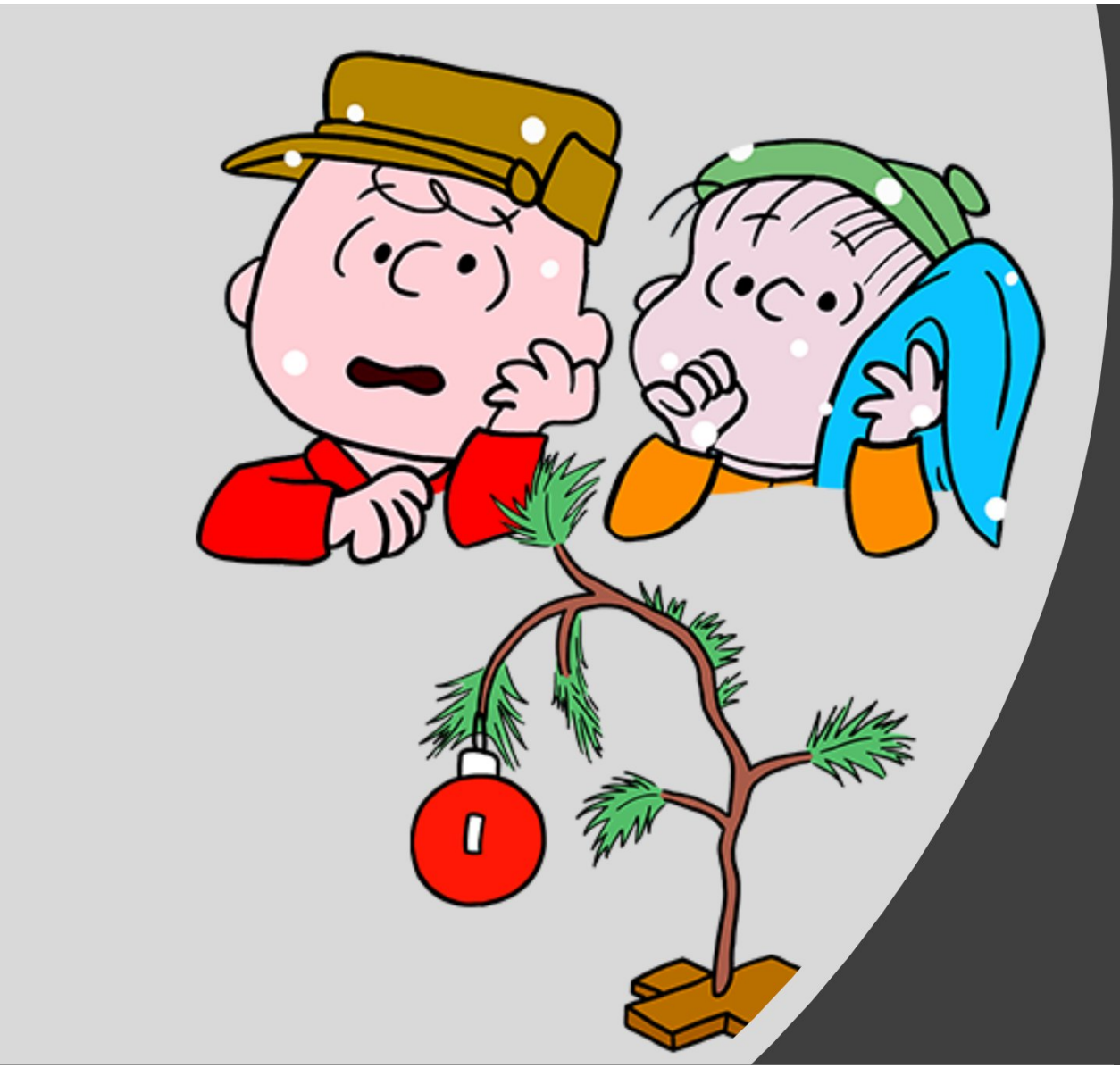
  Documentation

  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

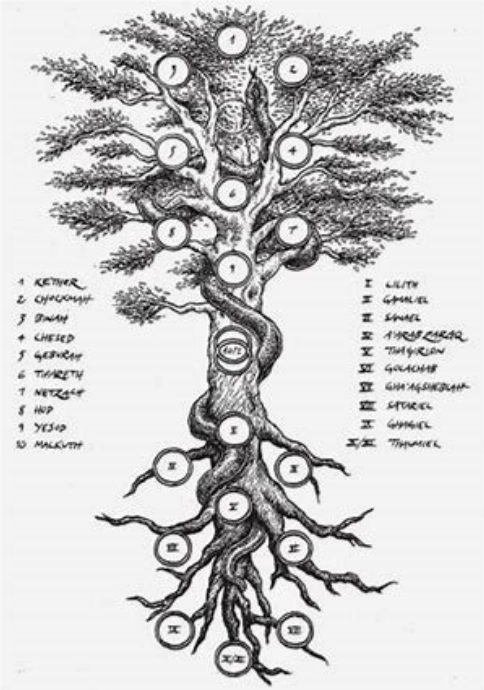
- Other than protecting mangroves, the legislation lacks specificity
- No recognition of heritage trees in spite of local standards preserving them
- No recognition of delegation of police power to private parties
- Legislation punishes local governments and their residents by treating every local government 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?

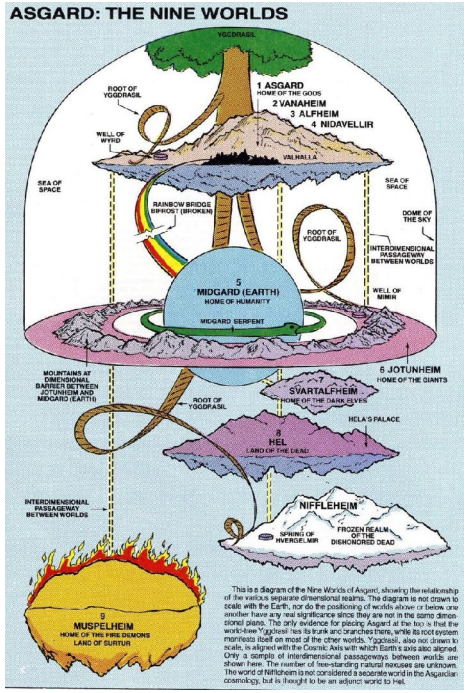
Benefits of Trees

- 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

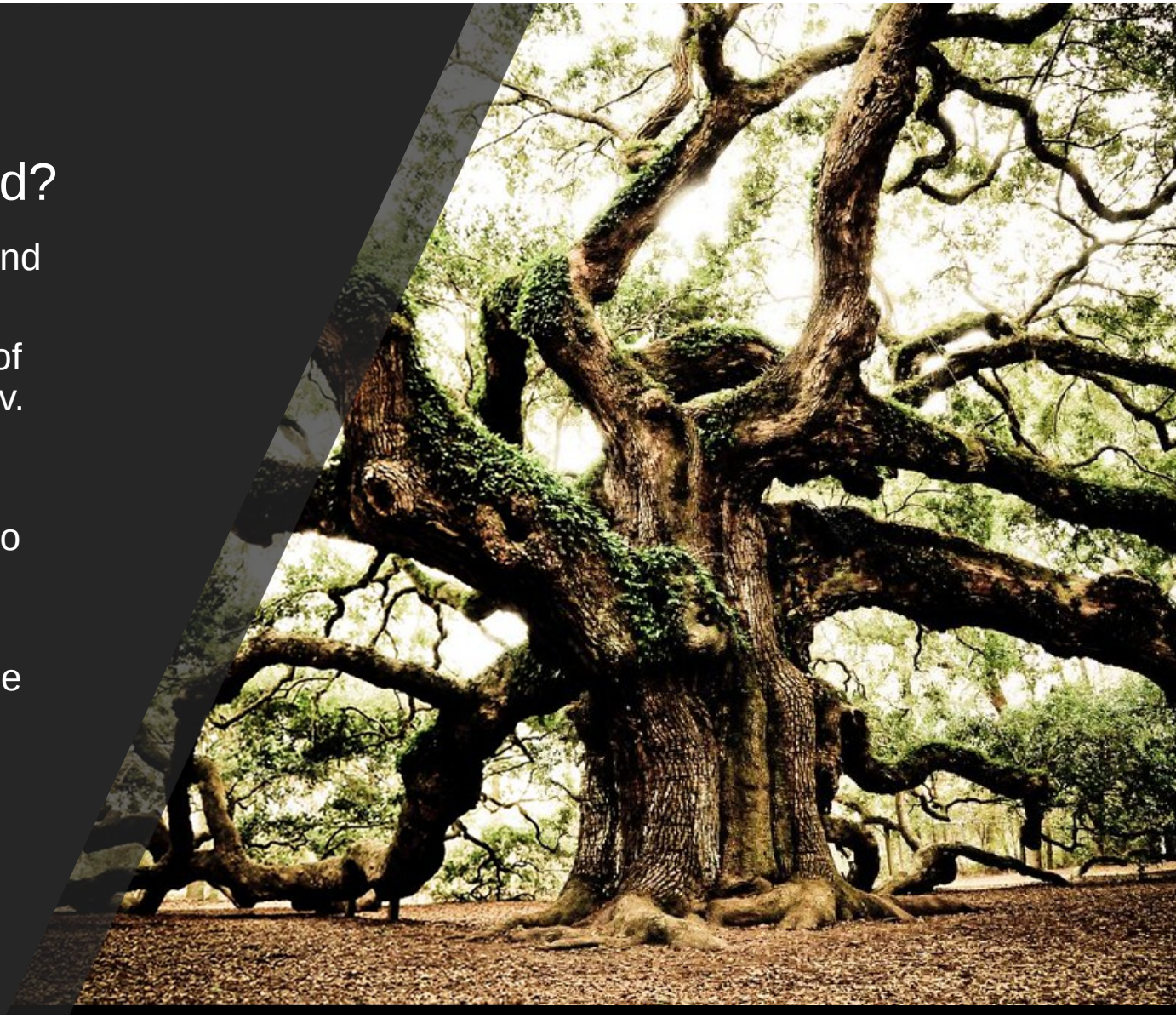
Trees figure in sacred traditions worldwide



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

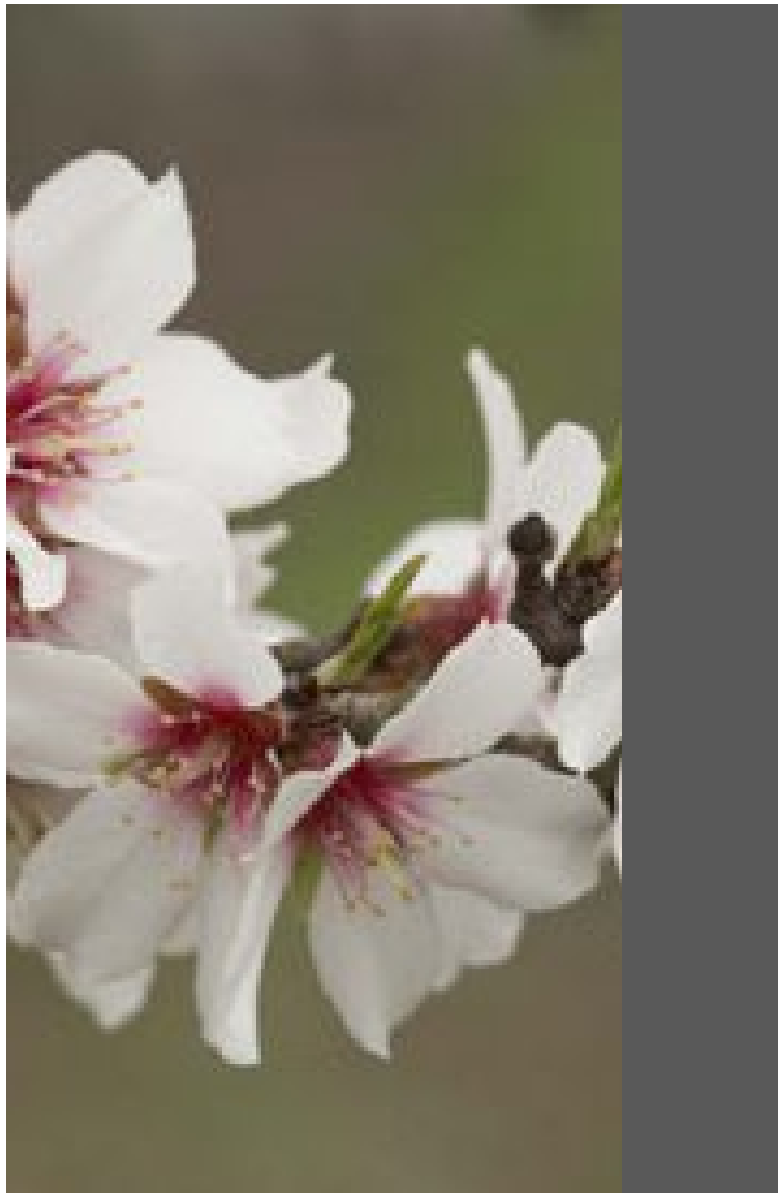
https://www.tampabay.com/news/tampa/2020/11/27/tampa-tree-cutting-spat-headed-to-an-appeals-court/

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. 1st 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

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 hits 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. 1st 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

File #: 22-00638 | Environmental Advisory Board | 6/2/2022

DISCUSSION ITEM

SPONSOR: Kristin Bennett, Chair

SUBJECT:

WATER TESTING AT BRUCE BEACH

SUMMARY:

On April 28, 2022, City Council received a presentation from Jane Caffrey and Barbara Albrecht regarding their initial findings.

On May 23, 2022, City Council received a presentation from J. Bruce Woody, Executive Director of ECUA regarding actions being taken in this area.

On August 12, 2021, City Council passed an item to enter into an agreement with UWF and the Center for Environmental Diagnostics and Bioremediation to conduct Bruce Beach Stormwater Source Tracking and Weekly Monitoring of publicly accessible areas where the public might encounter human pathogens.

Council allocated approximately $88,505 for this project.

In an attempt to identify sources of water borne pathogens detected in surface waters around Bruce Beach certain tracking and monitoring needs to take place. Downtown Pensacola is currently experiencing a rebounding economy, including the waterfront. The interest and attention of the Community Park at Bruce Beach has developed a large, dedicated community of visitors all with the goal of stewardship, including several schools, researchers, paddlers, birders, fishermen, and many others.

This loosely organized stewardship consortium is attracted to this waterfront parcel in part because of the easy access, as well as the seasonal flora, migratory fauna, and the reestablishment of a maritime coastal forest.

The city and stakeholder partners have committed resources towards tourism, which promote walkable, bikeable, access to clean water, and various outdoor recreational opportunities to both the community and visitors. Examples of water sports include the designated Blue Ways Trail, coastal rowing, sailing, regattas, Dragon Boat Racing, and the famous beaches, which invite the public to recreate in area waters.

Encouraging the public to use and enjoy the water brings a responsibility to the city to know and

understand local water quality, especially at access points. Should water quality be degraded to the point where human health may be affected, the city would be accountable to post signage warning of concerns and possible shut down access until concentrations of contaminants are no longer a threat to human health. The public trusts the city to implement measures to keep them safe while recreating.

In February 2021, students and staff from the University of West Florida began sampling water quality and monitoring concentrations of Enterococcus using USEPA Method (Enterolert (QT)) in a NELAC certified Lab. This study was supported by City of Pensacola Councilwoman Hill, who provided seed money to the Bream Fishermen Association (BFA).

Over fifty percent (50%) of the time, samples collected at the three sampling locations were found to be above acceptable threshold levels for human health exposure between Feb 8 and June 24.

Monitoring of water quality has shown the waters along Bruce Beach would be unacceptable for recreational activities much of the time. If not investigated and addressed, the city may be forced to post "No Swimming" signs along the shoreline. This may obstruct the efforts proposed to revitalize this area of the downtown shoreline.

The attached presentations made to City Council provide an.update on the project along with relevant findings.

PRIOR ACTION:

April 18, 2022 - City Council received a presentation regarding the Source Tracking and Weekly monitoring of the Bruce Beach area

May 23, 2022 - City Council received a presentation from Bruce Woody regarding the initial findings of the Source Tracking efforts and steps moving forward

STAFF CONTACT:

Don Kraher, Council Executive

ATTACHMENTS:

1) Source Tracking at Bruce Beach Presentation
2) Bruce Woody Presentation

PRESENTATION: No

Source Tracking microbial contamination at Bruce Beach

Image downloaded from https://thepulsepensacola.com/2018/01/african-american-leaders-support-hatchery-redevelopment-of-bruce-beach/

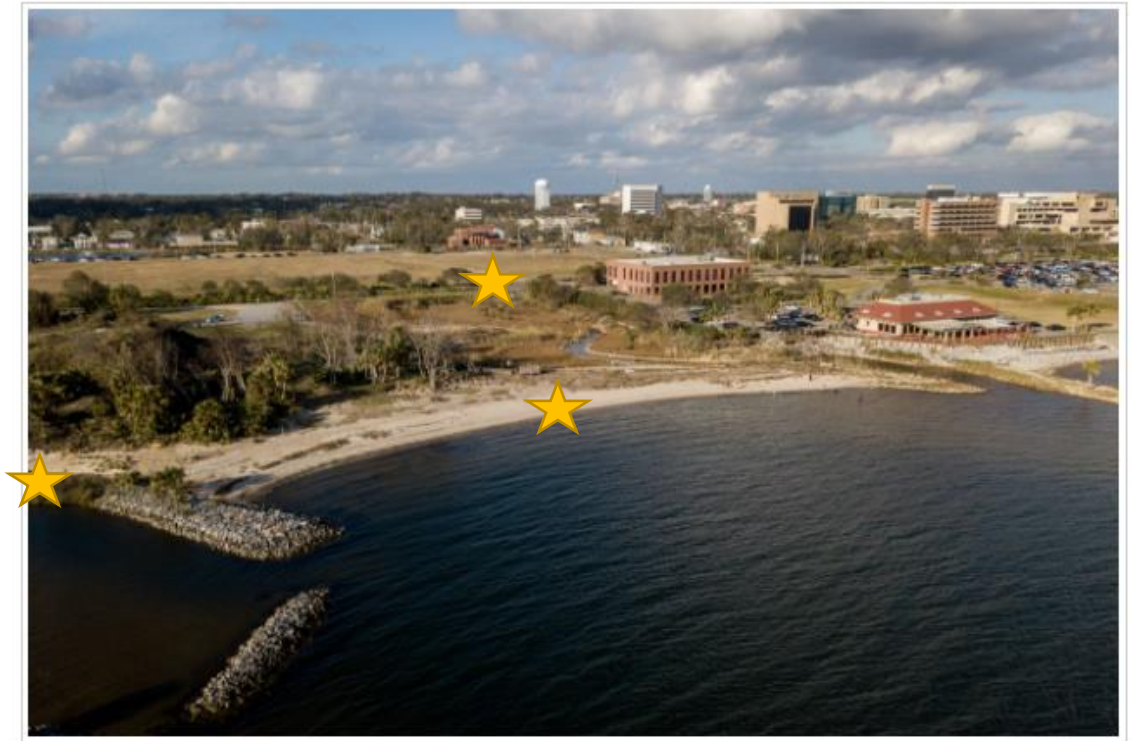
Jane Caffrey & Barbara Albrecht*

Center for Environmental Diagnostics and Bioremediation

University of West Florida

*Bream Fishermen Association

Bruce Beach Park Improvements



PROJECT OVERVIEW

The **Bruce Beach Park Improvement** is one of several locations along the the Continuous Waterfront Trail envisioned in the the Urban Core Community Redevelopment Plan, as further conceptualized in the Pensacola Waterfront Framework Plan. The vision for this project includes a prominent scenic overview mount, trails, early learning and play features, a grand entry plaza, and cultural exhibits, kayaking facilities and other exciting features.

PROJECT UPDATES

To sign up for updates on this and other CRA projects, **register for email or text alerts at City of Pensacola.com/Notify Me and select "CRA Projects".**

REDEVELOPMENT PLAN

2010 Urban Core Redevelopment Plan

PROJECT PLANS

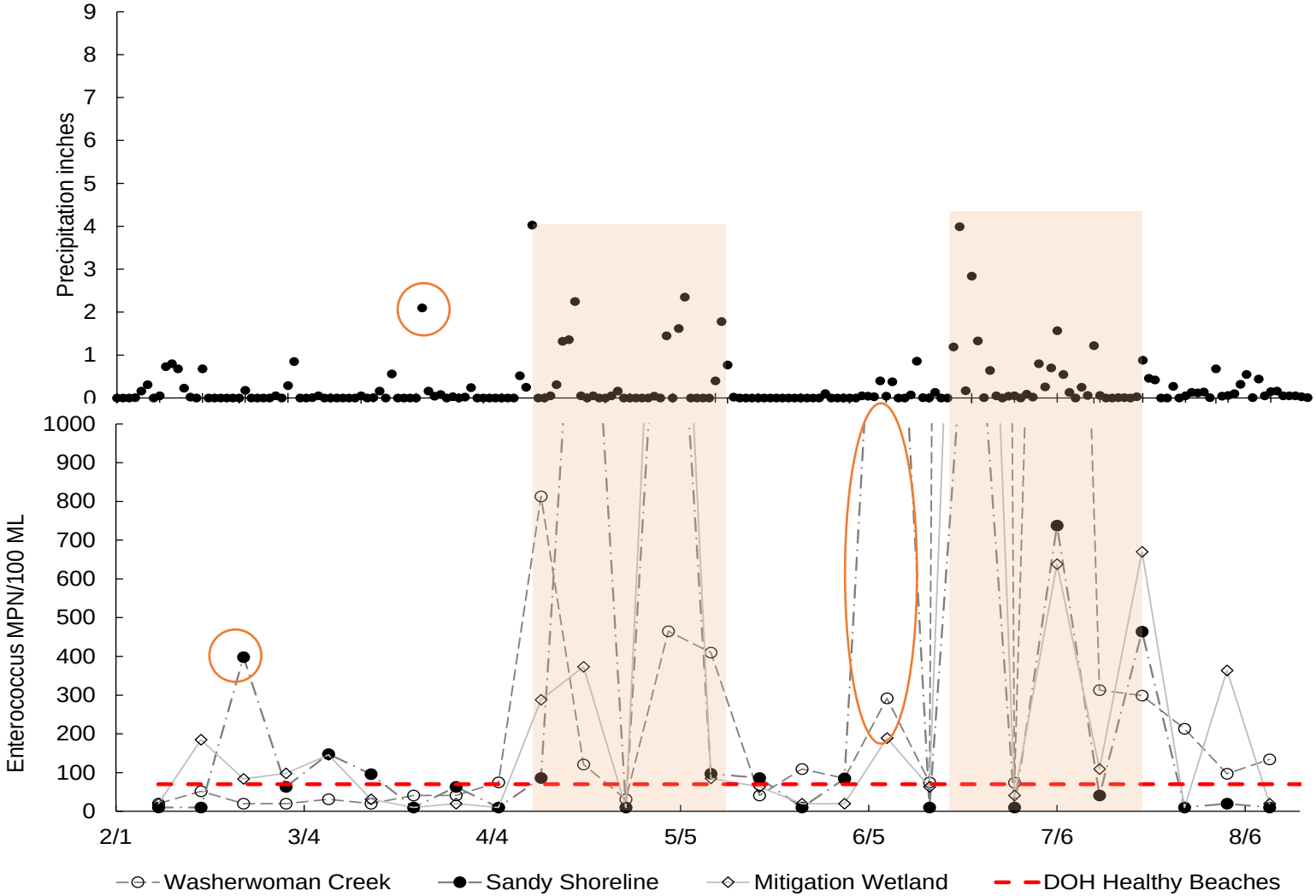
1. Waterfront Framework Plan Report -

https://www.cityofpensacola.com/3255/Bruce-Beach-Park-Improvements

Enterococcus – indicator bacteria

- Enterococci are indicators of the presence of fecal material in water
- Possible presence of disease-causing bacteria, viruses, and protozoa. These pathogens can sicken swimmers and others who use rivers and streams for recreation or eat raw shellfish or fish.
- Other potential health effects can include diseases of the skin, eyes, ears and respiratory tract. Eating fish or shellfish harvested from waters with fecal contamination can also result in human illness.
- DOH standard 70 MPN/100 mL
- https://www.epa.gov/national-aquatic-resource-surveys/indicators-enterococci#:~:text=Enterococci%20are%20indicators%20of%20the,eat%20raw%20shellfish%20or%20fish.

Bruce Beach study results
Feb 2021-August 2021



City of Pensacola study August 31, 2021 – February 2, 2022

1. Can we track down where high numbers are coming from at Bruce Beach?
2. How do storm events/rainfall affect bacterial loading?

29 unique locations (not including 3 Bruce Beach locations)

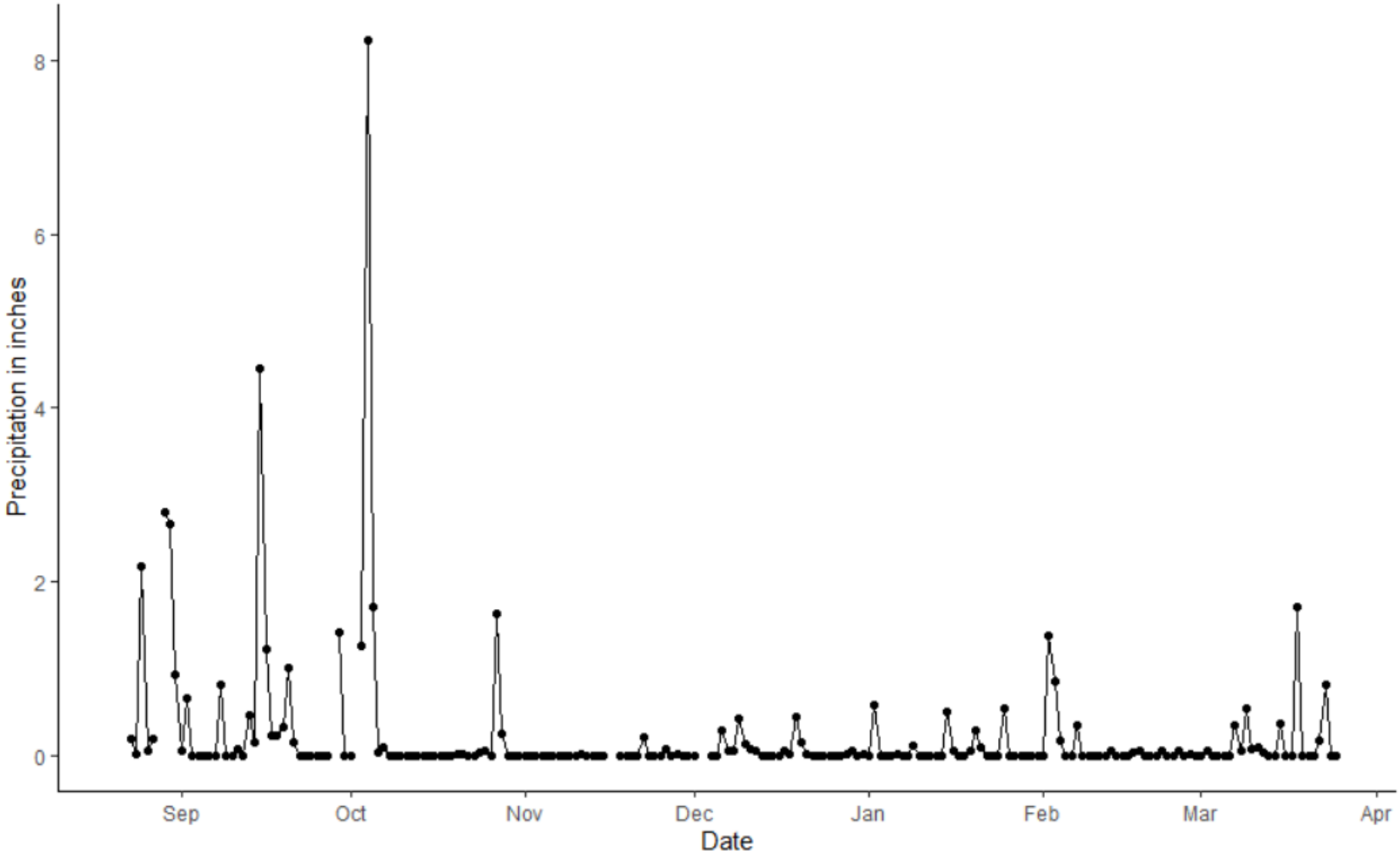
14 sampling dates between August 31, 2021 and February 3, 2022

All Enteroccocus results

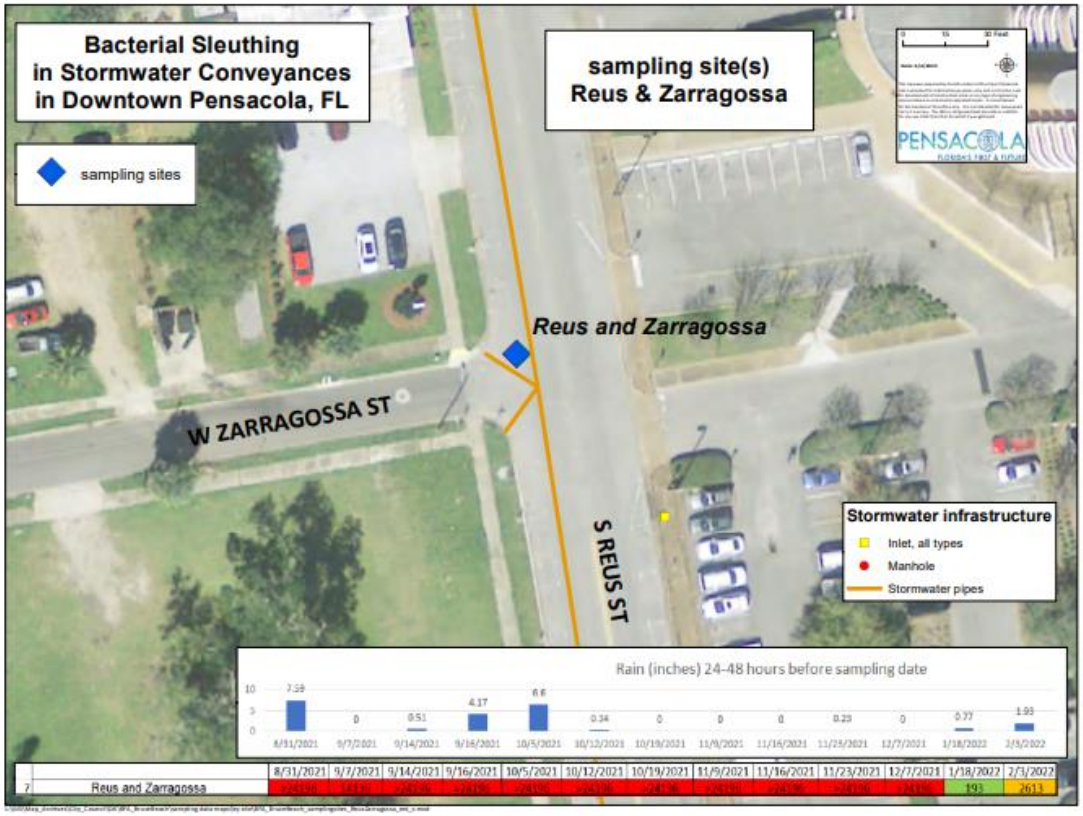
green < 400 MPN/100 mL
yellow 400-4000 MPN/100 mL
red > 4000 MPN/100 mL

Date	8/31/2021	9/7/2021	9/14/2021	9/16/2021	10/5/2021	10/12/2021	10/19/2021	11/9/2021	11/16/2021	11/23/2021	12/7/2021	1/18/2022	2/3/2022
Rain Events	7.59	0	0.51	4.17	6.6	0.34	0	0	0	0.23	0	0.77	1.93
Corrine Jones Stormwater Pond	933	10	86	NA	10462	10	41	10	10	10	10	NA	98
GH - Private Residence	>24196	2613	>24196	>24196	6131	272	457	97	31	10	504	3255	3654
Wetland Next to GH	NA	NA	>24196	>24196	>24196	3706	NA	NA	NA	NA	NA	NA	14199
Reus and Zarragossa	>24196	14136	>24196	>24196	>24196	>24196	>24196	>24196	>24196	>24196	>24196	193	2613
Reus and Intendencia (SW)	379	NA	NA	NA	NA	NA	NA	110*	NA	NA	NA	NA	NA
Reus and Intendencia (NW)	6131	181	5475	2489	2723	2247	1334	>24196	>24196	752	489	1130	585
Reus and Intendencia (NE)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	NA	NA
Reus and Intendencia (SE)	NA	2481	NA	4884	108	NA	NA	NA	NA	NA	NA	NA	NA
Reus and Garden	759	4106	223	NA	1014	181	30	154*	>24196	41	73	1292	171
Reus and Gregory	839	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Government and Reus (mid street)	NA	NA	NA	10462	NA	NA	NA	NA	NA	NA	NA	NA	NA
overnment between Reus & Devillers	NA	NA	NA	15531	2755	NA	NA	NA	NA	NA	NA	NA	NA
Spring & Chase	243	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spring and Garden SCI (NW)	31	10	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spring and Garden (SW)	NA	2603	813	52	860	41	63	NA	10	NA	NA	NA	NA
Spring and Romana	19863	NA	441	305	5172	368	988	NA	NA	NA	NA	NA	NA
Spring and Intendencia	NA	NA	52	243	160	10	10	NA	NA	NA	NA	NA	NA
Spring and Government	NA	NA	1012	NA	759	275	41	NA	NA	NA	NA	NA	NA
Spring and Main	NA	NA	NA	NA	NA	97	31	NA	NA	NA	NA	NA	NA
Coyle and Garden	241	20	NA	NA	8164	NA	NA	20	NA	NA	NA	30	NA
Coyle and Romana (SW)	>24196	NA	NA	NA	NA	NA	NA	>24196	31	NA	NA	>24196	NA
Coyle and Romana (NW)	NA	NA	NA	NA	NA	NA	NA	10	10	10	10	10	63
Coyle and Romana (NE)	NA	NA	NA	NA	NA	NA	NA	10	10	10	10	10	30
Coyle and Intendencia (NW)	NA	NA	NA	NA	NA	NA	NA	10	10	860	857	263	187
Coyle and Intendencia (SW)	NA	NA	NA	NA	NA	NA	NA	NA	10	96	1597	41	839
Coyle and Intendencia (NE)	NA	NA	NA	NA	NA	NA	NA	NA	72	24196	107	>24196	238
undwater Bag Coyle (South of Garden)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	>24196

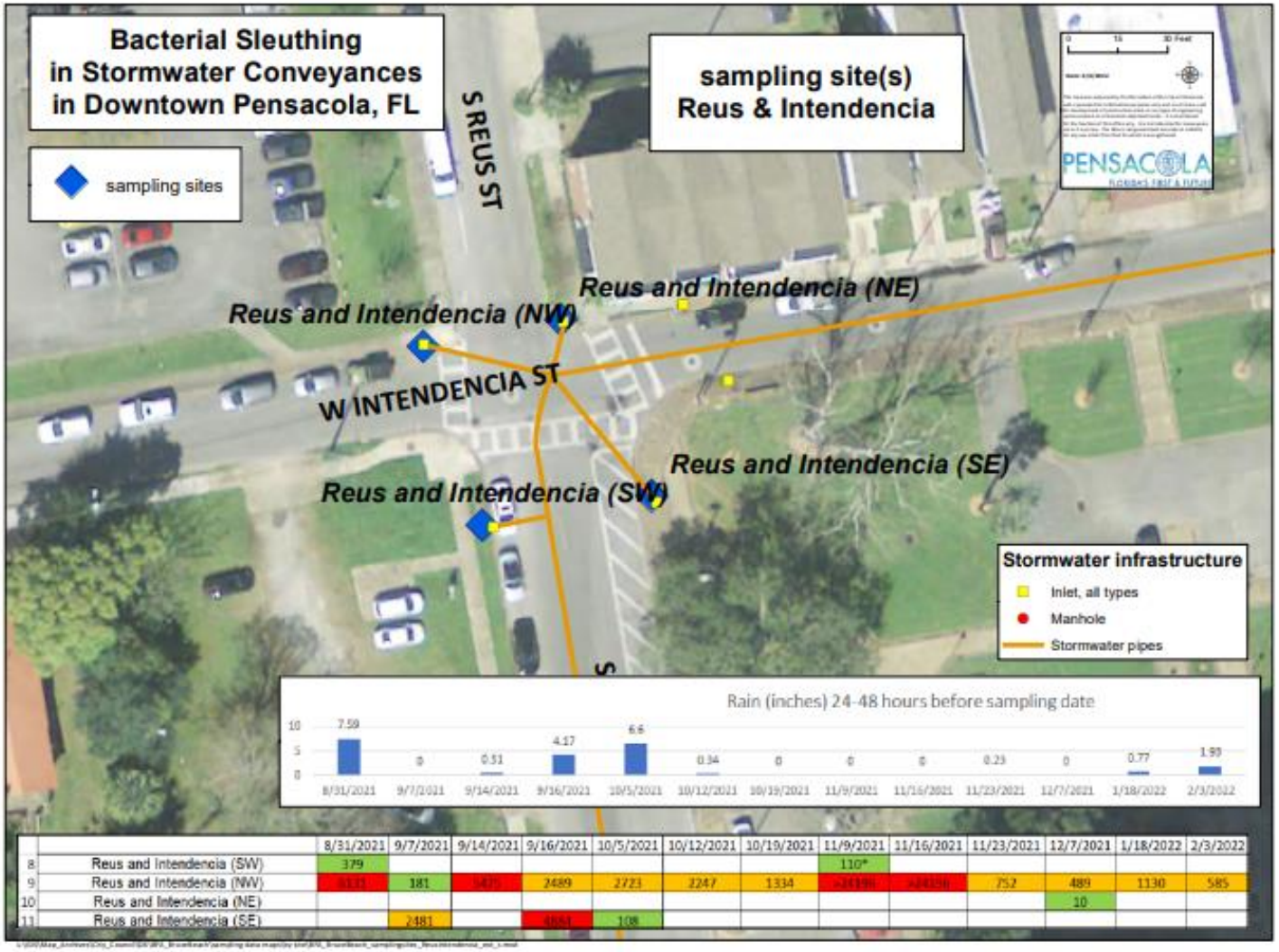
Rainfall


Precipitation in inches
0
2
4
6
8
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
Date

Reus & Zarragossa Streets

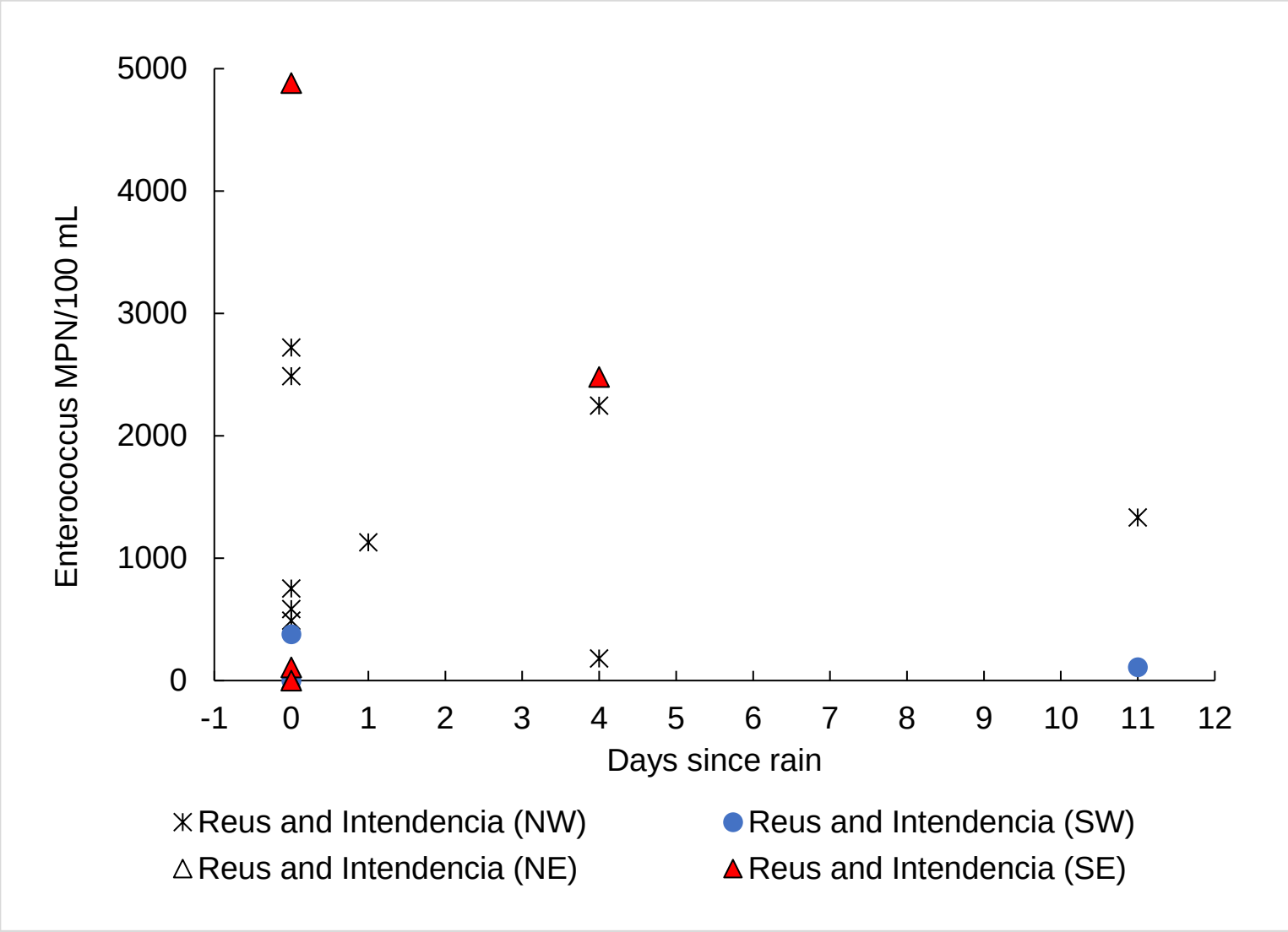


Reus & Intendencia Streets

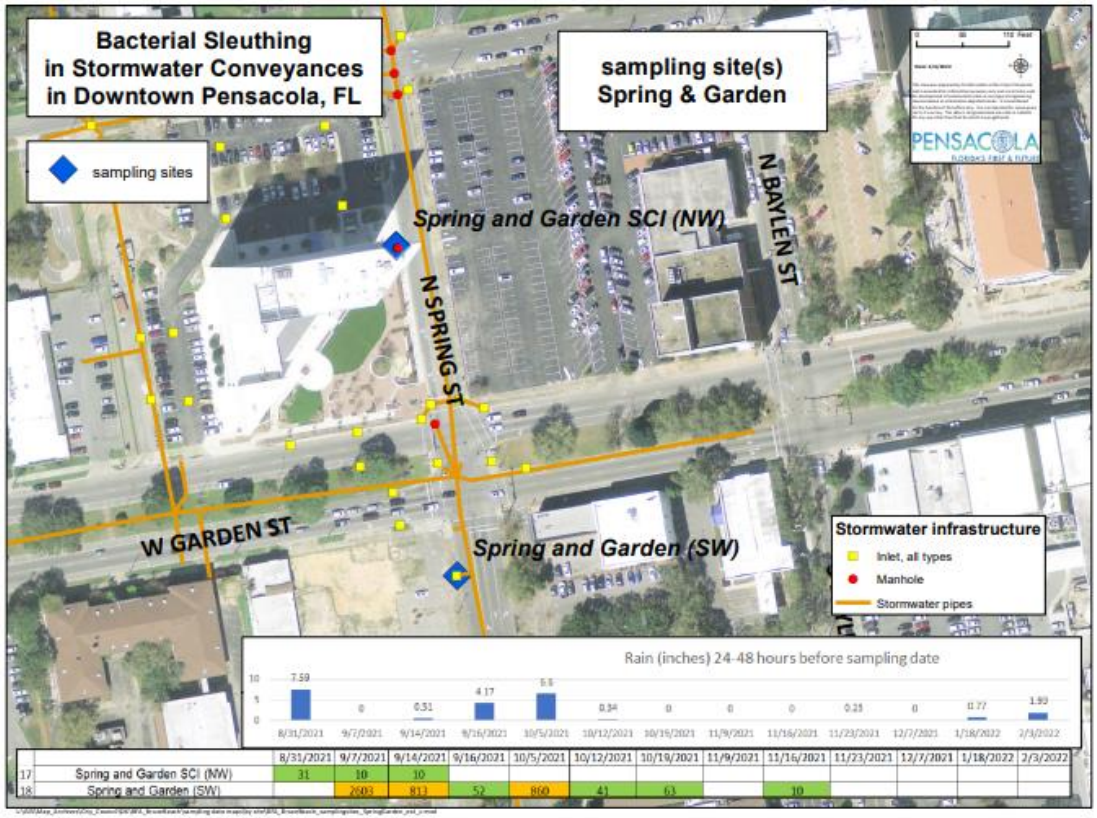


		8/31/2021	9/7/2021	9/14/2021	9/16/2021	10/5/2021	10/12/2021	10/19/2021	11/9/2021	11/16/2021	11/23/2021	12/7/2021	1/18/2022	2/3/2022
8	Reus and Intendencia (SW)	379							110*					
9	Reus and Intendencia (NW)	[illegible]	181	[illegible]	2489	2723	2247	1334	[illegible]	[illegible]	752	489	1130	585
10	Reus and Intendencia (NE)											10		
11	Reus and Intendencia (SE)		2481		[illegible]	108								

Differences in different storm drains
High values even following dry periods



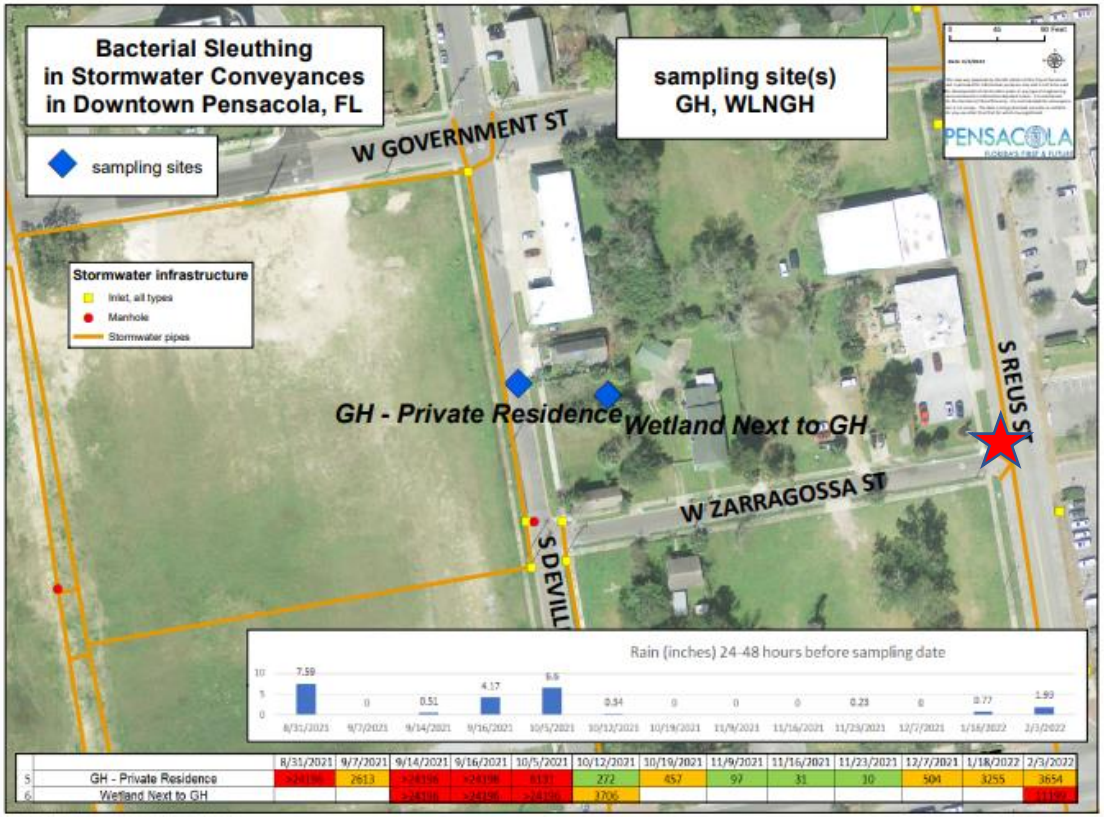
Spring and Garden Streets
SCI Bldg & SW



		8/31/2021	9/7/2021	9/14/2021	9/16/2021	10/5/2021	10/12/2021	10/19/2021	11/9/2021	11/16/2021	11/23/2021	12/7/2021	1/18/2022	2/3/2022
17	Spring and Garden SCI (NW)	31	10	10										
18	Spring and Garden (SW)		2003	813	52	860	41	63		10				

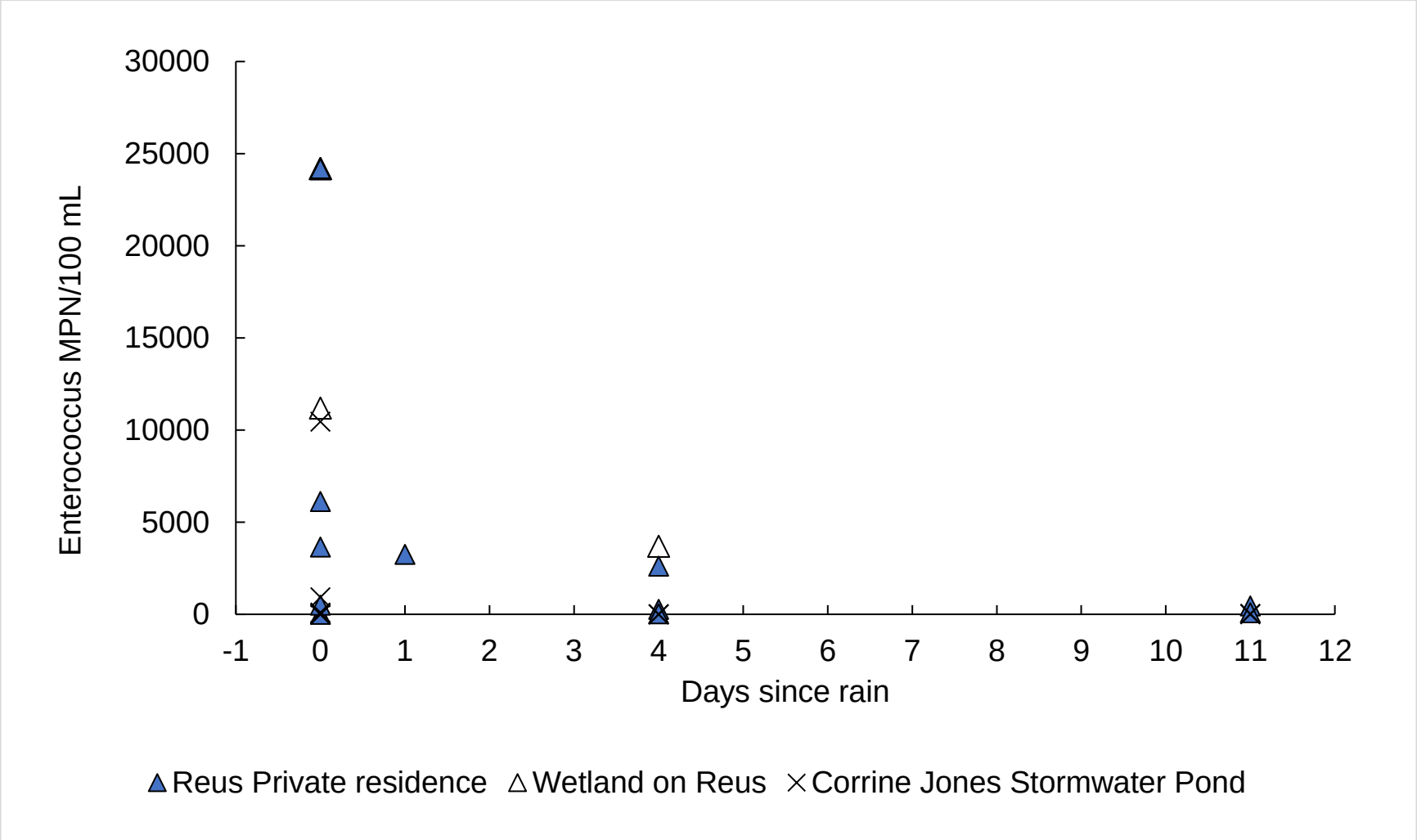
South DeVillers

Private Residence (GH) and Wetland Next to GH

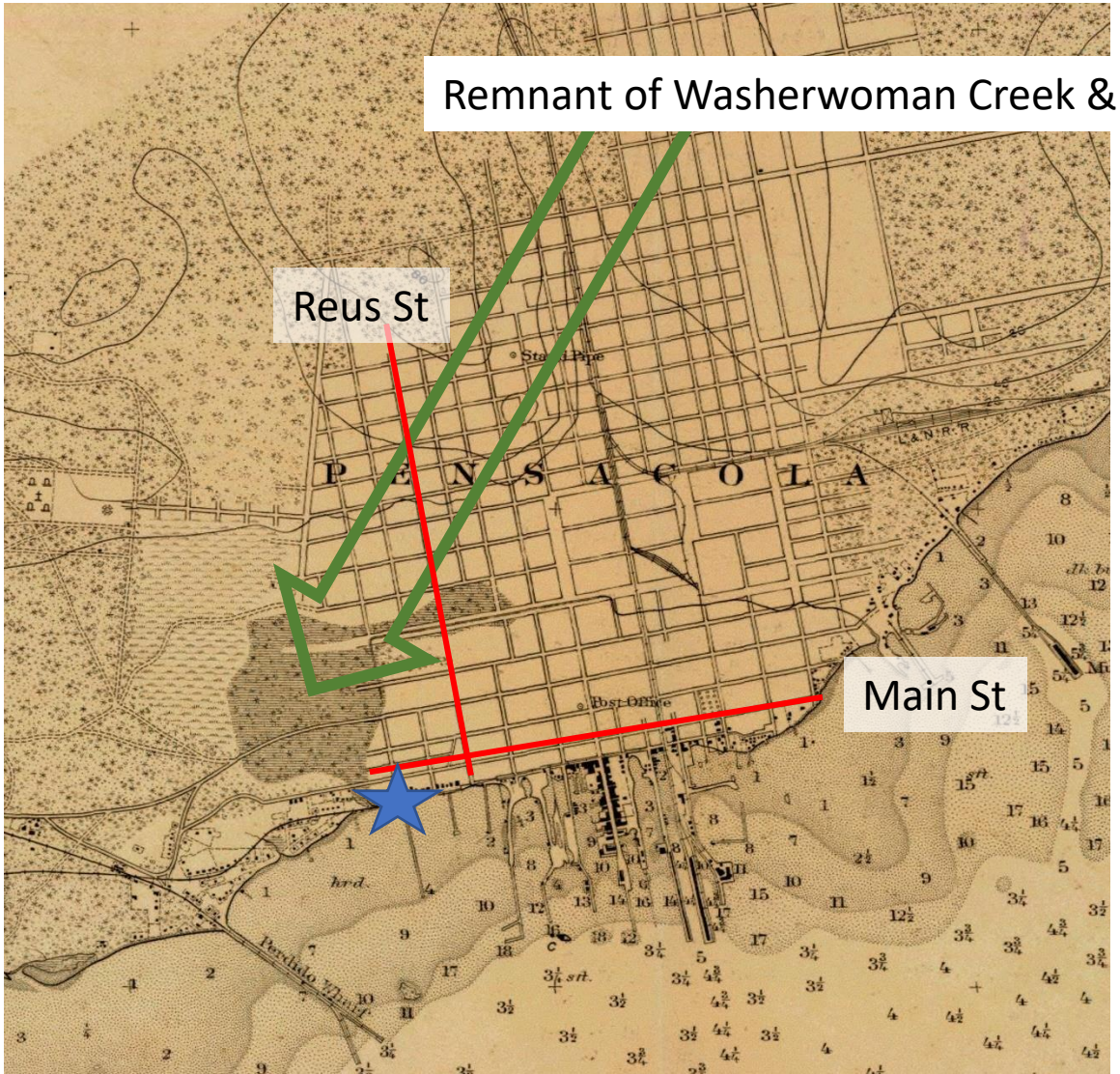


		8/31/2021	9/7/2021	9/14/2021	9/16/2021	10/5/2021	10/12/2021	10/19/2021	11/9/2021	11/16/2021	11/23/2021	12/7/2021	1/18/2022	2/3/2022
5	GH - Private Residence	>24196	2613	>24196	>24196	8131	272	457	97	31	30	504	3255	3654
6	Wetland Next to GH			>24196	>24196	>24196	3706							11196

Stormwater flush – Enterococcus declines over time



Historical context
1908 Coast & Geodectic Survey map



Other informative studies

- Beazley Research Laboratory (UCF qPCR)
  - Reus private residence and Reus & Zaragossa
  - Collected Nov 9, 2021
  - Both sites showed only human biomarkers (no dog or bird biomarkers)
- Tanyards report by Laurie Murphy – Jan 9, 2019
  - Tracks south of Garden St to Main – AE flood zone
  - Tracks south of Main – AE and VE flood zone
  - Tidal influence in stormwater in VE
- Tanyards report by Niehuis (FSU)
  - Rainfall rather than storm surge causes flooding
  - Worse during high tides
  - Tanyards east of Coyle and south of Intendencia not connected to Corrine Jones stormwater pond

Preliminary conclusions and next steps

- **This is a difficult problem with no quick or easy solutions**
- Locations with consistently higher Enterococcus (e.g. Reus & Zarragossa, DeVillers) should be highest priority for improving infrastructure
  - Cracked/missing mortar in brick pipes/culverts
- Bathrooms needed at Bruce Beach
- Flooding of low-lying areas
  - Tanyards – lowest elevation, most susceptible to problems
  - Residents exposed to potential pathogens in stormwater
  - How will new & continuing development in downtown affect Tanyards?
- Need better understanding of how water is moving in this region
  - Dye study? Camera probes?
- Scientific studies
  - How long do Enterococcus indicators survive in stormwater pipes?
  - Sampling for other microbial indicators?

Acknowledgements

- Bruce Beach study: UWF Students: Marshay Harvin, Julianna O'Bar, Hope Ebert, Joel Lukens, Dave Kawula, Michael Swords, Jessica Marquis, Maisha Epps
- Upland study: Joe Moss, UWF
- Wetlands Research lab: Jeremy Bosso & John Harmuth
- City of Pensacola: Miriam Woods, Roger Williams, Shawn & Chris, Brad Hinote, David Forte, Keith Wilkins, Kerrith Fiddler
- ECUA: Wendy Gavin

Funding

- Bream Fisherman Association
- City councilwoman – Ann Hill
- City of Pensacola
- UWF HMCSE – SURP
- CEDB

City of Pensacola ECUA Presentation

BRUCE WOODY, P.E.

MAY 23, 2022

Presentation Outline

- Background
  - What Rehabilitation ECUA has already done
  - What we are working on now
- Investigation - Joint ECUA and City of Pensacola
  - Potential Sources
  - Four part plan
  - Timeline
- Questions

EMERALD COAST UTILITIES AUTHORITY

Background - Work on rehabilitating the system

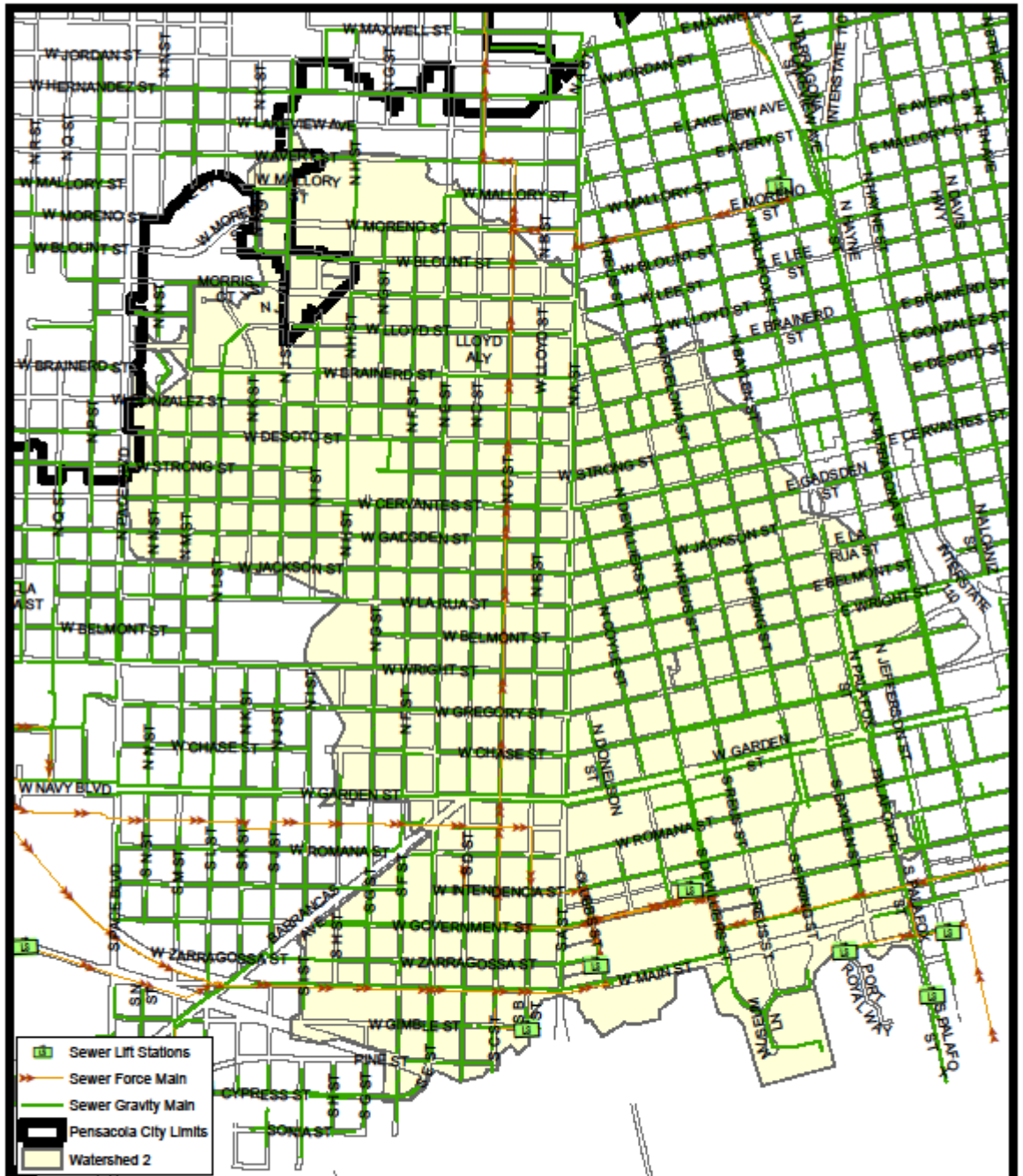
- ECUA regularly tests its sewer system by smoke testing and video inspection. Ongoing effort since inception; frequency has greatly increased in last 10 years.
- ECUA has a consent order based on SSOs that started in 2012 – As part of that consent order ECUA was required to investigate the system and prioritize rehabilitation efforts
- Most of the prioritized areas are in the downtown area.
- Since starting the program in 2012, ECUA has spent approximately $76 million on sewer rehab – About 25 million has been spent in the downtown area

EMERALD COAST UTILITIES AUTHORITY

Background

- Yellow shading shows the storm water basin boundary
- Green lines are ECUA gravity sewer lines
- The majority of the gravity sewer lines have been rehabilitated/ lined, some of the services have been lined up to the property line.
- Some of the stormwater in this basin goes to Bruce Beach and some to the east of Maritime Park

City of Pensacola Stormwater Watershed 2 + ECUA



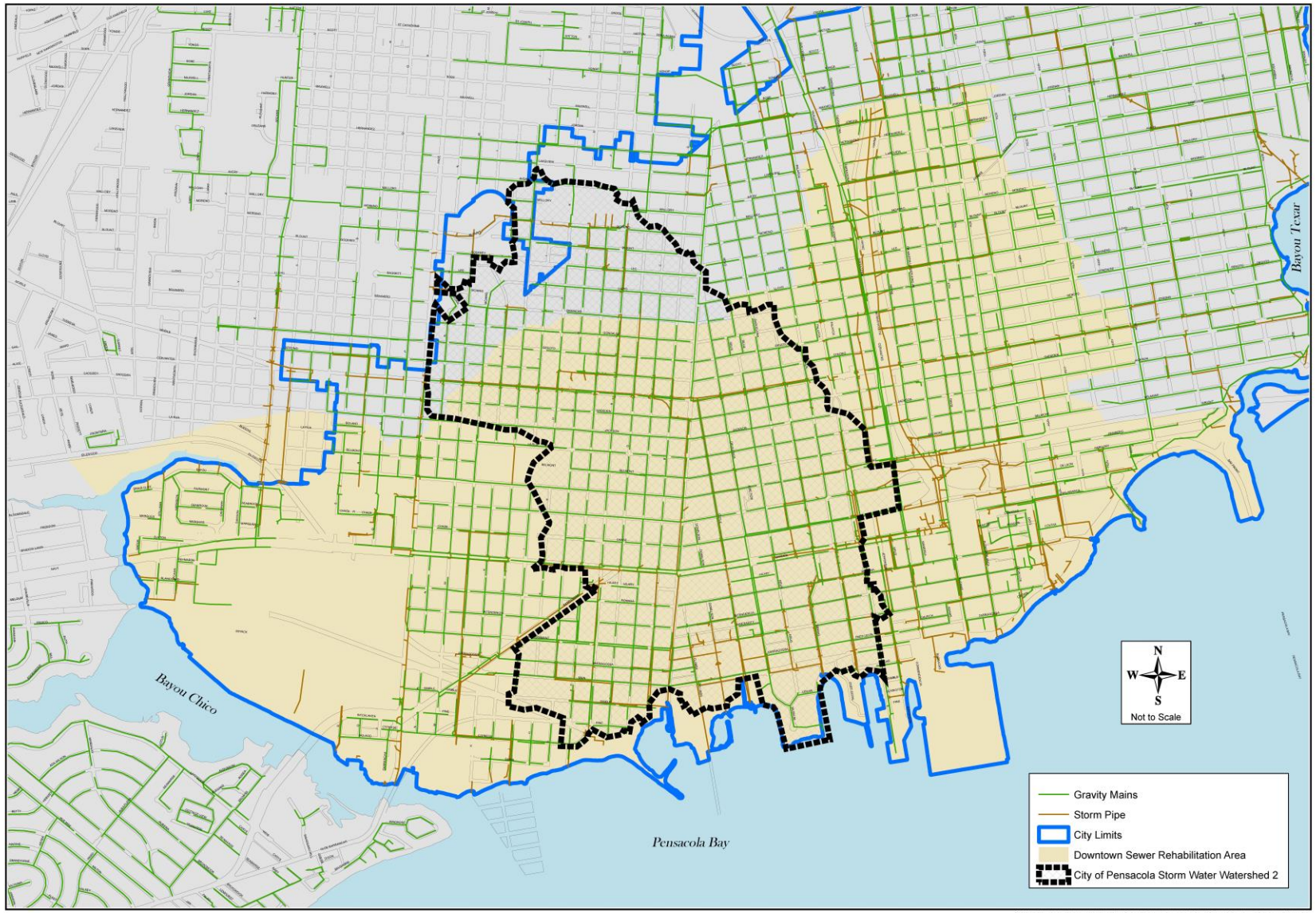
EMERALD COAST UTILITIES AUTHORITY

DOWNTOWN PENSACOLA SEWER REHABILITATION

TAN SHADED AREA IS THE MAIN REHABILITATION FOCUS AREA.

REHABILITATION WORK CONSISTS OF:

- REPLACEMENT OF LAMPHOLES
- POINT REPAIRS
- LINE SEWER MAINS
- INSTALL CLEANOUTS ON SERVICE LATERALS
- LINE SERVICE LATERALS WITHIN RIGHTS OF WAYS
- MANHOLE REHABILITATION

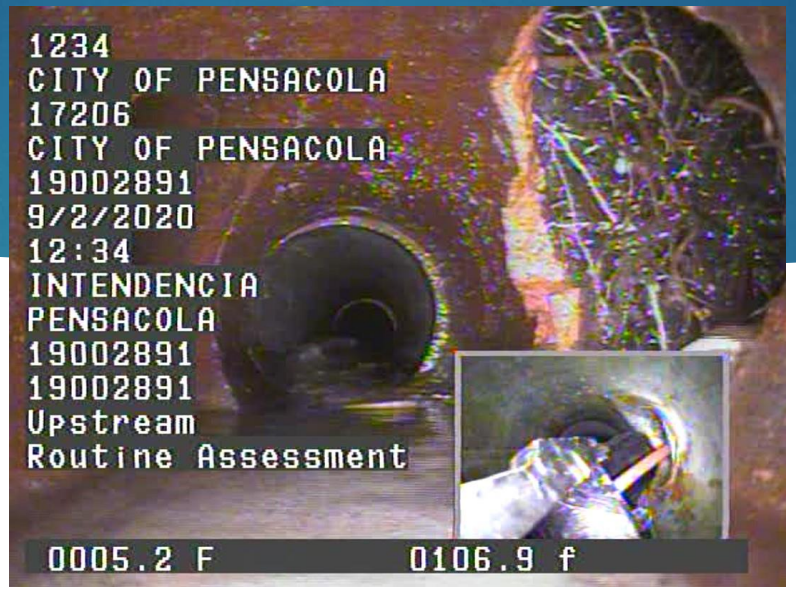


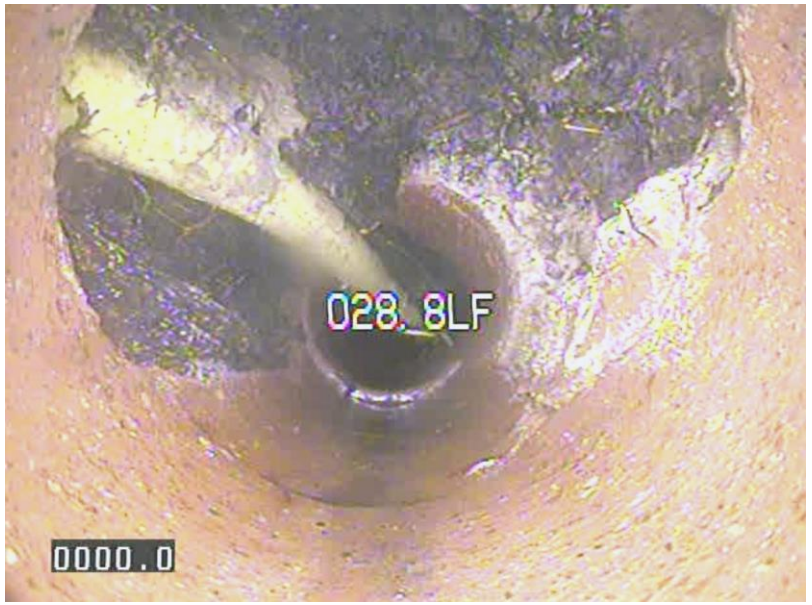
EMERALD COAST UTILITIES AUTHORITY

Downtown Sewer Rehabilitation - May 2022

Background

- Sanitary sewer system is not entirely owned by ECUA
- Approximately 30 percent of the gravity collection system is privately owned
- Private laterals can be a source of infiltration into the sanitary system as well as exfiltration out of the sanitary system.





Background

What are we doing now?

- Video inspecting private sewer laterals – Slow process
- Notifying property owners when we find something wrong
- Continuing rehabilitation of main lines, laterals and manholes
- Ongoing discussions with City and County Staff about a private lateral program

EMERALD COAST UTILITIES AUTHORITY

Investigation

Potential Sources:

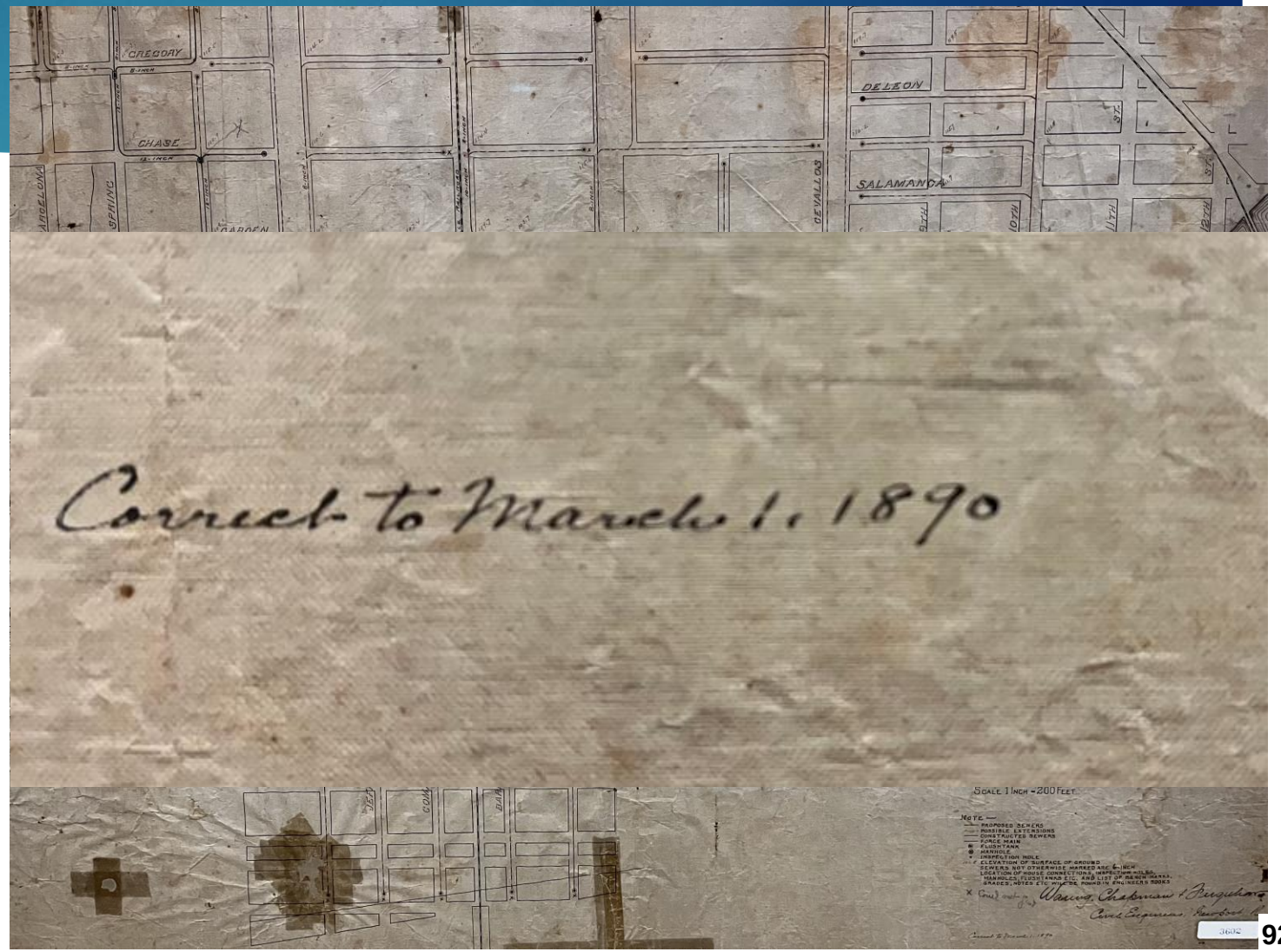
- Damaged ECUA facilities leaking near stormwater system
- Direct connection from sanitary to stormwater system
- Private sewer laterals leaking into storm system
- Wildlife contamination
- Septic tanks – None known in the area – but possible
- Homeless population

EMERALD COAST UTILITIES AUTHORITY

Investigation

Challenges:

- Old system
- Storm system is generally submerged/ tidally influenced in this area
- Flow from interconnect(s) could be intermittent
- Bacteria can grow in environment
- Rehabilitation is time-consuming and expensive



Investigation

Plan for investigation:

- Dye testing
- Detergent testing
- Fecal testing
- Inspections
  - City – stormwater system
  - ECUA – sanitary system

EMERALD COAST UTILITIES AUTHORITY

Dye Testing

Dye Testing:

- Put dye in bathrooms and check the sewer system and storm system for dye
- Buildings planned:
  - City Hall
  - Chappie James
  - Judicial Center
- City will monitor storm drains
- ECUA will monitor sanitary lines

EMERALD COAST UTILITIES AUTHORITY

Detergent and Fecal Testing

Detergent and fecal testing:

- Indicator test used to determine presence of detergent
- Test done on storm system
- It will give a yes or no with relative strength
- Could miss if discharge is intermittent
- Very fast to do – results on site in minutes
- Inexpensive to run – Cost is in time and labor
- Testing can move quickly upstream
- Intent is to determine area for further investigation
- Fecal sampling may be done at same time
  - Positive fecal but no detergent would indicate environmental source of fecal but not definitive
- City will provide manhole access and traffic control and ECUA will do testing

ECUA
EMERALD COAST UTILITIES AUTHORITY

Inspections

ECUA will inspect its system.

- ECUA has ongoing video inspection program approximately 250,000 feet per year
- ECUA will target inspection in areas of concern

City will inspect its storm system.

- System in the south downtown area is generally submerged making video inspection very difficult
- Inspect outfalls and junction boxes for connections

EMERALD COAST UTILITIES AUTHORITY

Timeline

Overall timeline is dependent on findings in initial phase:

- Timing for planning is immediate – City and ECUA staff have already met and will continue to meet weekly to work out details.
- We are reviewing locations for inserting dye and monitoring locations and should start within a month. Timing of tides to ensure outgoing tide will be coordinated with testing.
- After completing dye testing, detergent and fecal testing will start. Locations and staffing are still to be determined but a plan for this should be complete within a month. Once started it should move quickly.

EMERALD COAST UTILITIES AUTHORITY

Questions

Questions ?

EMERALD COAST UTILITIES AUTHORITY