CITY OF PENSACOLA
ENVIRONMENTAL ADVISORY BOARD
MEETING MINUTES

Thursday, September 5, 2019 ~ 2:00 p.m.

Members Present: Neil Richards, Chair, Bob Bennett, Vice Chair, Michael Lynch, Dr. Gloria Horning, Calvin Avant, Katie Fox, Kyle Kopytchak

Members Absent: Blase Butts

1. Call to Order/Quorum: The meeting was called to order by Chair Richards. A Quorum was established.

2. Approval of Meeting Minutes—August 1, 2019

   Motion made by Member Kopytchak to approve the minutes, seconded by Member Bennett and was unanimously carried.

3. Board Member Comments/Updates:
   a) 12th Avenue Tree Replacement and No Parking Enforcement—Kyle Kopytchak
   Member Kopytchak had no information to provide about the no parking signs. Chair Richards commented on the impact on trees due to compacting of earth surrounding them in the root zone.
   b) Perdido Pensacola Bay Estuary Program—Michael Lynch
   Member Lynch provided an update on the Perdido Pensacola Bay Estuary Program. New Director, Jim Trifilio is getting settled in. They have formed some technical committees and are starting to get their management plan together. They have advertised for a couple of positions and are looking for office space. They are currently sharing space with the County.

   Member Horning inquired what was EAB's charge from the City to do with this program. Chair Richards stated it was the protection of the watershed. Member Lynch stated that is important and is why he is following up on the program. The estuary doesn't follow county or city lines. The Program has expressed an interest in having the EAB have a role, if possible. Member Fox indicated that the focus is on those bodies. There has been an Estuary Program developed to assess the water body conditions and ultimately come up with a plan to restore or do whatever they want to propose to do with it. It is in the best interest, at minimum, to follow the process as projects come down the line. Member Horning indicated that she felt the focus should be on stormwater runoff. Member Avant also expressed concerns about Marcus Bayou, Crescent Lake, all of the toxins from Wedgewood are going into that Bayou and Crescent Lake.

c) Criteria for Tree Fund Grant Proposals
Chair skipped update on this item. To be considered with Tree Ordinance item.
d) Environmental Justice/Injustice—Calvin Avant
Member Avant inquired about what Council districts were affected with the clear cutting of trees. Member Bennet indicated that it mostly occurred in District 2 and District 5. Member Horning also indicated that the Tanyard neighborhood was also affected.
e) Water Quality of Bay/Gulf—Blaise Butts, Katie Fox
Member Fox indicated that Quite Water Beach has experienced some water quality issues lately.
f) Sanders Beach and Bruce Beach Stormwater Drainage, Flooding/Toxin Issues in Tanyard—Gloria Horning
Member Horning reported that the last storms had water over the curbs at Sanders Beach and Bruce Beach, expressed concerns about the amount of grass cuttings, trash and debris that clog the stormwater drains in that area and other areas of Pensacola. She has reported her concerns about the debris to the City's 311 system. The City is not maintaining the stormwater drains. Chair Richards inquired about whether there was any progress being made at the superfund site at Sanders Beach area. Member Horning expressed her concerns about the amount of industrial pollution that is occurring along Main Street and Government Street and the lack of environmental impact assessments on the new homes that are being built in the area. EPA has handed off the site to the Florida DEP.
g) Environmental Impacts on Disenfranchised Communities—Gloria Horning
h) Renewable Energy Sources—Neil Richards, Robert Bennett
Member Bennett reported that the Solar Together Florida Power and Light hearing is now scheduled for October 15 and they claim they will have something done by November 22.
i) Stormwater Management—Katie Fox
Member Fox has nothing new to report. Chair Richards indicated that it might be something to look into with regard to debris removal prior to storms, etc. Member Fox volunteered to reach out to the City's Public Works department to obtain any information the Board may be interested in getting. Member Bennett also reported that the Blue Green Algae Task Force meeting was canceled/postponed due to the hurricane.

4. Old Business:
a) Referral from City Council—Amendment to the Code of the City of Pensacola - Land Development Code, Section 12-6 Tree/Landscape Regulations (See August 1, Agenda for attachment)

Chair Richards opened discussion on the proposed amendment to the Land Development Code, Section 12-6 Tree/Landscape Regulations, asking the Board

to pay particular attention to page 19, Section (C) Tree planting trust fund of the draft and that is the neighborhood associations requesting grants for planting of trees within their scope. What's been talked about is how to process that request, either the dollar amount or scope of that recommendation. Member Bennett suggested striking the language of other appropriate landscape vegetation, since trees are what's wanted, not vegetation. Chair Richards indicated that what precipitated the Council moratorium on the tree planting trust fund was the funds were used to purchase irrigation supplies, equipment, trucks, etc. Member Kopytchak asked if there was discussion included in the proposed ordinance to provide for the mitigation money that goes into the trust fund to be used in the same district where the trees were removed. He felt very strongly that the funds should be allocated to the districts where the trees were removed.

Also, a suggestion was made to make the grant program language into Section (D). Further discussion by Board members on the grant program involved community organizations. What types of community organizations, clubs, neighborhood associations, civic organizations, registered as a 501c(3), organizations recognized by the City, etc. could apply. Who would have responsibility of maintaining the trees/landscaping. Have a list of approved trees, that the recommendation can be made from that list. Having the right tree at the right place at the right time. Placement of trees is critical, especially when you are dealing with power lines.

The Board also discussed power grids, lines and underground utilities as they relate to trees and how they are trimmed and the value of trees vs. maintaining power lines.

Member Bennett distributed a proposal for Sec. 12.6.2.- Applicability (d) Heritage Trees for the Board to review and consider at the next meeting.

b) Referral from City Council—Examine Chemicals Used on Athletic Fields and Parks in the City of Pensacola (See August 1, 2019 Agenda for attachment)

Member Fox reviewed information she received from the City on spray dates for the athletic fields in the city limits and also material safety data sheets for each of the chemicals they apply. There is also a spray schedule for insect, pest and lawn control as well as photos at Sanders Beach and a schedule for spring. They are also trying to get the records from Wallace Company. Bill Kimball with the Parks and Recreation Department provided the information and he is open to whatever the Environmental Advisory Board has to suggest. The Pensacola Youth

Soccer organization is also in support of addressing any issues with spraying youth athletic fields.

Chair Richards also reported that the Council Executive has sent a request for information to both Brian Cooper and Derrick Owens.

Member Fox also discussed articles she found on Integrated Pest Management vs. Organic Land Management. (copy attached.)

Member Horning indicated that the use of pesticides and fertilizers also affects stormwater runoff that will ultimately land in the bay.

Member Fox indicated that a comprehensive review of the practice needs to be made.

Member Kopytchak stated that the EAB was tasked to examine the chemicals that are being used. The Board requested this information and that they be identified. Until the Board gets that information, we request that they stop spraying where children are playing. It could be detrimental to the children.

Member Fox made a motion to proposed a moratorium on spraying of the youth athletic fields within the City limits that are occupied during the season until we have received the data requested and have had an opportunity to review it. Member Horning seconded the motion.

Member Kopytchak suggested asking for an all inclusive list and the schedule. Further discussion occurred on listing athletic programs, including parks, and researching organic uses. Member Fox indicated that Bill Kimball relayed that 95% of the City's parks are not sprayed with chemicals.

Member Fox restated and revised the motion to propose a moratorium on spraying youth athletic fields and parks within the City limits until the City provides a comprehensive list of chemicals and the application schedule for the EAB to review. Member Horning seconded the motion.

Christian Wagley offered a suggestion that the Board specify pesticides, herbicides, and fungicides. Those are the three chemicals typically applied to lawns. Fertilizers are typically not a public health issue. He also suggested doing a couple of fields as a trial with the organics to see what would work and what wouldn't.

Vote was taken and unanimously carried.

5. New Business

Chair Richards announced that Keep Pensacola Beautiful, Inc. is launching a campaign to take over the purchase of the old Coca-Cola Bottling Plant on North Palafox Street and convert it into a non-profit environmental study center.

6. Reports and Announcements

Member Lynch reported that the Pensacola & Perdido Bays Estuary Technical Committee would be having a meeting on September 19, 2019 at 1:30 p.m. at the Central Escambia County Central Office Complex, followed by the Education Committee at 4 p.m.

7. Public Comments—Open Forum

Chris Mauldin with the City Engineering/Public Works Department reported that the FDOT beautification grant is due in October. The City passed on the beautification grant and is going to do the joint participation grant with FDOT. The beautification grant was limited to $100,000. The joint participation grant would go up to about $400,000 and would do larger projects and include better plants and vegetation.

Christian Wagley provided information on the reduction in stormwater clean-out crews, the City staff initiated green house gas emissions study done this summer, utilizing an intern, nothing official from the elected officials has happened on some of the Climate Task Force recommendations.

As relates to the tree discussion, he agrees that trees should be planted, not shrubs and also getting rid of the hospital exemption. Money has to be allocated to maintain the trees. Also commented on the grant programs. The Mayor has control over spending money on those tree projects. The Mayor has had conversations with Council Member Myers on where to plant trees. The Council still has to free up the Tree Trust Fund.

He recommended inviting Derrick Owens, the City's Public Works Director to address the Board on the City's Stormwater Plan.

Member Bennett commented that the businesses along "L" Street, north of Fairfield have taken it upon themselves to clean the stormwater drains and since they have, that area has not flooded once.

8. Adjourn

There being no further business to come before the Board, the meeting was adjourned at 3:54 p.m.

City of Pensacola Environmental Advisory Board Meeting
Thursday, September 5, 2019
Whibbs Conference Room, 1st Floor
City Hall, 222 West Main Street
2 P.M.

PLEASE SIGN IN

NAME (Please Print)	Agenda Item	Telephone Number	Address
Kristin Bennett		772 781 3414	
Jeremy Morrison, Inweekly		850.530.1657	jeremyamorrison@gmail.com
Chris Maddox		436-5696	
Christian Hagley		850.687-9958	

\Sign In Sheet

Handout - Bob Bennett
9/5/2019
To be considered 10/3/2019

Proposed Tree Resolution

I propose that the EAB recommend that the first sentence of Sec. 12-6-2. – Applicability (D) *Heritage Trees*:
Be changed from "A protected tree identified by species in Appendix A of this chapter which is twelve (14) inches or greater in diameter as measured at Diameter Breast Height (DBH)" to A protected tree identified by species in Appendix A of this chapter which is **twenty four (24) inches** or greater in diameter as measured at Diameter Breast Height (DBH)"

Reasoning:
A twelve- or fourteen-inches criteria for a heritage tree is overly restrictive and inconsistent with good practices established by other cities in Florida or nearby as shown by the table below.

City	**Heritage Tree Diameter**	**TPZ**
Tampa	24" / 32"	6' from tree surface
Orlando	24"	6' from tree surface
Tallahassee	18"	1' radius for each 1" diameter
Jacksonville	24" (11.5" Long Leaf Pine)	
Miami	18"	
Ocala	24"	5' to 20' radius
Clearwater	24"/32"	
Mobile	20"	10' radius
Panama City	30"	1' radius for each 1" diameter
Milton	36"	

Hand Out - Neil Richards
9/5/2019

SS-ORH-003

UNIVERSITY OF FLORIDA

Florida Cooperative Extension Service

Dispelling Misperceptions About Trees[1]

Edward F. Gilman[2]

There are many misperceptions about trees and their care. Many have been passed from one generation to the next without critical evaluation. ***Each of the statements below is true.*** Each is discussed with regards to the most recent research findings.

INJURIES

Trees are very different from people.

People and other animals are able to heal by replacing or regenerating injured tissue. A laceration on your finger quickly heals, so that several weeks later, the injured area is hardly noticeable. Trees are unable to replace injured tissues. Instead, they form boundaries around it which seal the area from the rest of the tree. The wood within the area which has been sealed off can no longer supply the rest of the tree with stored food. Additional injuries seal off more wood, which further reduces the supply of available food. The tree can slowly starve in this manner from repeated injuries.

ROOTS

Most trees do not have tap roots.

In sandy, well-drained soils some trees such as oaks and pines develop deep roots directly beneath the trunk. These are commonly called tap roots. Many trees never develop tap roots. When the water table is close to the soil surface or when the soil is compacted, tap roots do not develop. Tap roots generally do not form on trees planted in our urban landscapes.

Roots grow far beyond the edge of the branches.

Trees growing in the woods have root systems reaching well beyond the edge of the branches. Frequently, roots extend from the trunk as far as the tree is tall. Roots on trees and shrubs planted in a landscape grow to 3 times the branch spread within 2 or 3 years after planting.

Damaging roots on one side of a tree may cause branch dieback on that side only, or at random throughout the crown.

Roots on one side of trees such as oaks and mahogany generally supply the same side of the crown with water and nutrients absorbed through the roots. When roots on one side of a tree are injured, branches on that side often will drop leaves. On other trees such as the maples and rosewood, damage on one side of the root system may cause branch death anywhere in the crown of the tree.

Root pruning does not stimulate root branching all the way back to the trunk.

Roots are often pruned before moving a tree in hopes of creating a denser root ball. However most root growth after root pruning occurs at the end of the root just behind the root pruning cut, not back toward the trunk. Therefore, dig the root ball of a recently root pruned tree several inches beyond the

1. This document is PUB NUMBERSS-ORH-003,, a series of the Environmental Horticulture Department Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. First published: June 1991. Reviewed: August 1994.

2. Edward F. Gilman, assistant professor, Plant Environment, Environmental Horticulture Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.

location of the root pruning. Root pruning should be conducted 6 to 10 weeks before moving the tree. Root pruning more than 10 weeks before moving the tree may reduce the advantages of pruning, because regenerated roots will quickly grow outside of the root ball.

Roots circling around a container do not continue to grow in a circle once the tree is planted in the landscape.

Roots frequently circle within the perimeter of a container several times before the tree is planted into the landscape. The portion of the root which grew in the container does not straighten out, but new growth on this root will not continue to circle.

Most roots are in the top 3′ of soil. The finer roots are concentrated in the top several inches of soil.

Most tree roots are located within the top 3' of soil. However, because the majority of the fine roots are concentrated in the top several inches of soil, minor soil disturbances can injure or remove a large portion of the absorbing roots on a tree. This often happens in landscapes surrounding recently constructed buildings.

CONSTRUCTION

A small trunk wound inflicted by heavy equipment during construction or at any other time can cause major injury to the tree.

Trees cannot replace injured tissue (heal) like animals, therefore injury permanently reduces the trees capacity to fight future stress caused by insects, disease or other factors. In addition, many roots are destroyed as heavy equipment operates over the root system. Even one pass over the root system with a bulldozer, earth scraper or other piece of heavy equipment can cause significant root damage. Do not allow equipment to operate within the dripline of trees which are to be saved.

To save a tree during construction, do not disturb soil beneath the branch dripline.

Tree roots extend to 3 or more times the dripline of the tree. Approximately 50% of the root system is located outside of the dripline. No equipment should operate within this area if the tree is to be saved. Sturdy fences should be constructed at the dripline to encourage enforcement of this guideline. This serves as the best guide to helping prevent construction related tree decline.

Grading to prepare a site for laying sod or planting shrubs can harm trees.

Since many of the fine roots are located close to the soil surface, changing the soil grade by as little as 6 inches can cause extensive damage to the root system of existing trees. Design the landscape to largely fit the existing grade. If grade changes are necessary close to a tree, remove the tree and plant several younger, healthy trees.

Building a "tree well" around the trunk of a tree will not help save a tree from the effects of fill soil.

Never remove soil from or add soil to the area within the dripline of a tree which is to be saved. Building a wall which is commonly called a "tree well" several feet from the trunk and adding more than 3 or 4 inches of soil to the area outside of the well will kill the tree. If a tree well is to be used, construct it no closer to the tree than the dripline and grade the soil outside of the well to prevent runoff water from entering the well. There have been reported cases of success using a system of gravel spread over the existing grade. Vertical vent pipes are installed every 10′ to supply the roots with oxygen. Coarse textured fill soil is then carefully spread over a soil-separator fabric placed over the gravel.

If a tree survives the first 2-4 years following construction, it may still die from construction related injuries.

Trees frequently decline after construction of a building. Often, branches begin dying within a year or two due to severe root damage. The tree may be dead within 3 or 4 years. However, it is not uncommon for trees to show a slow decline over a 5 to 15-year period. The tree may not show obvious signs of decline for many years, but, following a drought period branches may quickly loose leaves and begin a rapid decline. The tree may be dead a year or two later.

TREE TRUNK AND BRANCH STRUCTURE

A trunk with a crook in it is just as strong as a straight one.

Trunks with slight doglegs, crooks or bends are not weaker than those which are straight. This is a normal development on many trees. Healthy trees will grow out of this condition and the trunk will appear straighter as it becomes larger in diameter.

Horizontal oriented branches are better attached to trees than upright branches.

Upright branches are poorly attached to trunks. Horizontally oriented branches are usually well secured to trunks. A branch growing in an upright manner parallel to the trunk becomes a second trunk. The tree is said to have a double leader. Double leaders are dangerous because they can easily split from the tree during a storm.

Topping a tree creates a dangerous tree.

Topping is cutting branches or stems to random lengths. Trees should never be topped. Topping creates hazardous trees because the wood inside the cut branch begins to decay. The sprouts which grow in response to topping are not well secured to the topped branch and they can easily split from the tree as they grow larger. To avoid this, always prune a branch back to a living branch crotch. This technique is called drop crotching.

A tree with multiple leaders (trunks) will become hazardous to people and property as the tree grows larger.

Never allow trees to grow with multiple upright leaders. These trees may look handsome when young but will become hazardous as they grow older. Always prune so that leaders or branches are spaced 18-36″ apart along the main trunk and be sure they form an angle of more than 40° with the trunk.

PRUNING

Trees do not heal, but they are capable of isolating injured tissue from healthy wood.

Trees are not like people because they do not heal. They lose the storage capacity and function of injured tissue forever because cells cannot be replaced. In contrast, animals heal by replacing injured tissues. Plants must seal off the injured tissue from the healthy portion of the plant in order to stay alive. The swollen callus tissue developing around a trunk wound or pruning scar is closing over the injured tissue, not healing.

Never cut a branch flush with the trunk. That is, never make a flush cut.

It has been standard practice to prune a branch flush with the trunk. Extensive research has shown that this practice injures the trunk and is extremely detrimental to tree health and shortens the life of trees. Flush cuts make a tree more susceptible to frost cracks, heat injury, root problems, cankers and sprouting. To avoid this, always cut to the outside of the branch collar which is located at the base of every branch. This collar is easily seen as a swelling where the branch meets the trunk. When pruning in this manner it may appear as though a stub is left on the trunk; however, properly done, this technique removes all of the branch and does not injure the trunk.

Rapid, thick callus growth around a pruned branch does not indicate the branch was pruned properly.

The callus forming around a pruning scar often forms rapidly, regardless of the pruning technique. This tissue should form a ring or donut-shape if the branch was removed properly. If the callus is elongated or oval-shaped, the branch was pruned too close to the trunk. Despite rapid callus formation around a pruning cut or injury, extensive wood rot can develop inside the tree.

Wound dressings and pruning paints do not prevent wood rot.

Wound dressings do not prevent wood decay behind a pruning cut. They provide no benefit to the tree. Some research indicates that wound dressings promote decay in certain situations. If pruning paints or wound dressings are to be used for cosmetic purposes, apply only a very thin coat. Only proper pruning practices prevent wood rot.

PLANTING

Plants should be planted no deeper in landscape soil than they were in the nursery.

Trees and shrubs should be planted at the same depth or slightly shallower than they were in the nursery field soil or container medium. This allows for the quickest root growth which is crucial to tree and shrub establishment. Planting too deep slows root growth which can lead to poor establishment or death.

Transplanted trees do not benefit from amending the backfill soil.

The soil removed from the planting hole should be used to fill in around the root ball. No amendments should be added to the backfill soil, since it does not improve survival or growth after planting. Apply 2-3 inches of mulch after transplanting around the base of each plant.

Trees should not be pruned at transplanting to compensate for root loss.

Pruning the shoots and branches to compensate for root loss on field-grown trees is not recommended. The signal initiating root regeneration originates in the shoot tips. Pruning removes shoot tips and therefore reduces root regeneration. Begin corrective pruning 1 year after planting.

FERTILIZING

Established trees do not need to be fertilized in order to maintain their health.

Established trees growing in a maintained landscape receive enough fertilizer for moderate growth because their root system grows into fertilized shrub beds and turf areas. In most instances, additional fertilizer is not necessary to maintain healthy trees. Some trees with micronutrient deficiencies respond to applications of minor elements.

Tree fertilizer does not need to be injected into the soil.

Tree roots grow among turf and shrub roots. Most are located within the top 12" of soil. Fertilizer broadcast over the surface reaches tree, shrub and turf roots in adequate amounts.

Fertilizing in the fall generally does not stimulate growth in the fall.

Many trees and shrubs will not respond to an application of fertilizer until the following year. Fall is an excellent time to fertilize trees and shrubs. Crape myrtle and some other plants may grow in the fall in response to fall fertilization.

Tree fertilizer is not tree food.

Trees utilize the elements in fertilizer to produce glucose, proteins and other materials which might be considered food; i.e. they manufacture their own food. Fertilizers supply some of the elements necessary for plants to produce tree food, but fertilizer is not tree food.

Trees do not require 6 lbs. nitrogen/1000 ft^2/year to maintain good growth.

Established trees probably require much less than this to maintain good growth, particularly if lawn clippings and leaves are recycled back into the landscape. This high rate may promote rapid growth on young trees. Fertilize established plants with 2 lbs. nitrogen/1000 ft^2/year.

MISCELLANEOUS

Moss and bromeliads are native plants, and they do not kill trees.

Trees are often weakened by root damage caused by soil disturbances such as construction related activities. Because these trees are under stress, they often loose many leaves allowing more light to penetrate the branches. This stimulates growth of moss and bromeliads. They grow fast because the tree is weakened, but are not the cause of poor tree growth.

NOTE: There is an accompanying slide set and script available through your County Cooperative Extension Service Office.

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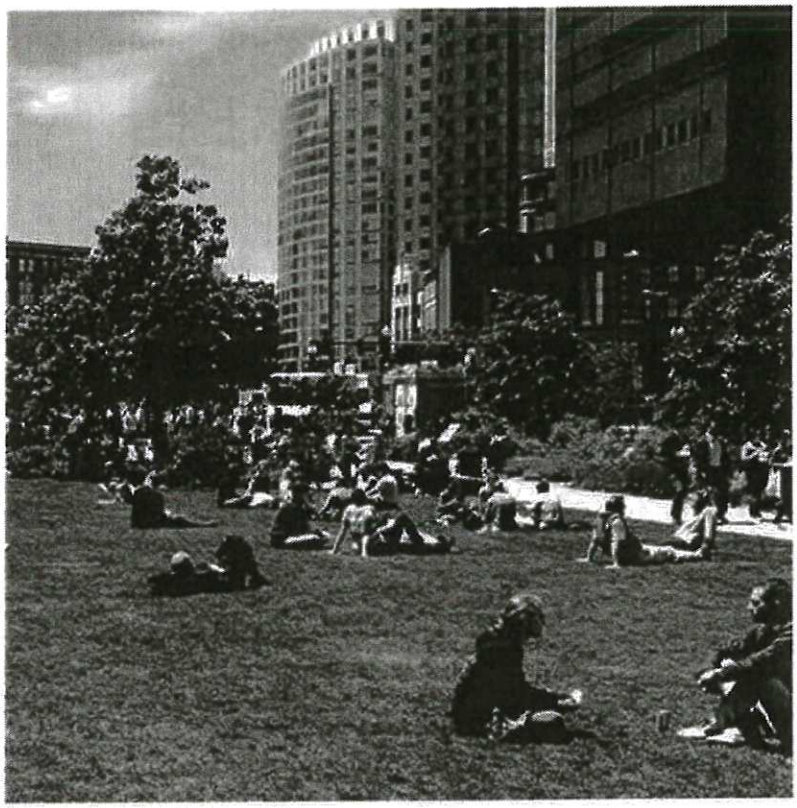
Hand out - Katie Fox
9/5/2019

Managing City Parks Without Synthetic Pesticides or Fertilizers

nrpa.org/parks-recreation-magazine/2019/march/managing-city-parks-without-synthetic-pesticides-or-fertilizers/



While not yet widespread, organic land management is gaining traction around the country as more is learned about the downsides of synthetic fertilizers, herbicides and pesticides. While not without challenges, organic practices are cropping up around the country and there's a lot to be learned from the people and parks at the forefront of this movement.

Integrated Pest Management vs. Organic Land Management

So, what is an organic park? These parks are managed under one of two approaches: integrated pest management (IPM) or organic land management (OLM). Both aim to steward the land in a low-impact way that is more in line with natural ecosystem processes, and reduce the use of synthetic fertilizers and pesticides, though to varying degrees.

The focus of IPM is just that: pests. The less strict of the two organic approaches, it allows for use of traditional chemical treatments when necessary. IPM is essentially an approach to scaling back on synthetics and relies on routine inspection, monitoring and reporting to identify a threshold for pest populations. If that threshold is crossed, synthetic pesticides may be applied to limit the amount of damage. The same goes for weeds. To prevent unwanted plants from spreading, land managers develop thresholds that are specific to the site based on an understanding of native species and tailored to streamline labor and herbicide applications.

In contrast, OLM programs do not use any synthetic fertilizers, pesticides or herbicides. Along with the close monitoring and knowledge of the local ecosystem required in IPM, OLM approaches may also utilize organic fertilizers and means of removing pests and weeds. Organic fertilizers are nutrient-rich, natural substances derived from animal and vegetable matter, such as manure, peat or chicken litter, which are rich with nitrogen, phosphorus and potassium. These are slower-acting than conventional fertilizers since they take longer for the plants to break down, but practitioners of organic horticulture have developed some methods to improve this response time, such as compost tea. In this process, natural fertilizers are mixed with microbes to help break them down, and then steeped in water, just like tea. The tea is ultimately applied in spot treatments or by spraying the liquid on the desired area. Compost tea has helped the Rose Kennedy Greenway in Boston — a system of parks managed entirely through OLM — reduce its fertilizer applications by 50 percent, according to Horticulture Foreman Anthony Ruggiero.

The most common method of organic weed management is "mechanical" — removal by hand. While tedious and time-consuming, this is the most effective way to remove unwanted plants and control growth. Other methods include spot spraying with steam or boiling vinegar, and using grazing animals, such as goats, on a large weed infestation. Both steam and vinegar have their downfalls: vinegar produces inconsistent results that vary by weed species, while steam machines can cost more than $20,000, which makes them a far less desirable method of weed management. And, although it's fun to imagine a herd of goats roaming around cities devouring weeds, this often isn't feasible for many reasons. For now, it mostly comes down to good old people power.

The Downside of Synthetic Fertilizers

At the heart of all organic management approaches is the concept of "right plant, right place." Ruggiero advises: "If a plant is not successful in its current environment, don't waste time and resources trying to make it work. Organics is about getting the right species with proper soil management for that given environment to ensure plant or turf success." Choosing species that will thrive where planted is the key to an organic approach that works.

While quick-acting and effective, there are many cons to conventional approaches that use synthetic materials. Synthetic fertilizers are made from petroleum or salt byproducts. The compounds used in these fertilizers are water soluble and break down easily in soil, so they quickly provide nutrients to plants, often within 48 hours. Much like carbo-loading or a sugar rush, this gives plants a quick jolt of nutrients, which result in rapid growth. These growth periods often don't last long though, sometimes not even a full month. The short bursts of growth mean plants are often not able to establish a proper root system, which is crucial for retaining water and nutrients, as well as for strengthening the plant against disease, pests, and wear and tear by park visitors. In addition, extended use of synthetic fertilizers over time depletes the soil of nutrients, making it dependent on frequent applications of chemicals.

Synthetics can do even more damage beyond impacting the stability of a system. Pesticides and herbicides pose serious health threats to anyone who is exposed to the chemicals. In high-traffic spaces, like city parks, this is a cause for concern. Two major ingredients found in common pesticides are glyphosate and 2, 4-dichlorophenoxyacetic acid (known as 2, 4-D). While the use of these substances is allowed in the United States and the U.S. Environmental Protection Agency classifies glyphosate as not likely to be carcinogenic, the International Agency for Research on Cancer has labeled both glyphosate and 2, 4-D as possible carcinogens. There are currently more

than 400 lawsuits filed against the Monsanto Company by cancer survivors and the families of cancer victims. These lawsuits blame the Monsanto herbicide Roundup, in which the active ingredient is glyphosate, for causing non-Hodgkin's Lymphoma.

Beyond human health effects, pesticides are detrimental to many other species, including important pollinators. Some types of neonicitoids, a common insecticide, have been banned in Europe because of their disastrous effect on honeybee populations. Water contamination is also a concern: runoff and leaching from both pesticides and fertilizers can cause algal blooms, presenting further hazards to a broader range of ecosystems.

Organic Management Challenges

These are some scary implications that come with the use of conventional fertilizers and pesticides, especially when applied to beloved and heavily used places like city parks. Luckily, integrated pest management and organic land management offer a way around this by helping scale back the use of these substances or by offering an alternative to using them at all.

However, organic management is not without challenges, with public attitude, perhaps, being the biggest hurdle. While many people are aware of the threats posed by synthetic fertilizers and pesticides, a lack of significant regulations at a federal level means there is often no impetus for change. As people and communities learn more about IPM or OLM methods and see peers attempting to go organic, general support and acceptance is likely to build.

Cost is often the No. 1 concern when it comes to city park management, but, fortunately, it isn't a major issue for organic approaches. While IPM and OLM can cost the same as a conventional program at the outset and, occasionally, slightly more because of more rigorous maintenance needs, organics often offer a budget break down the line, as the park system becomes independent of the repeated application of synthetics.

There are currently less than 40 communities nationwide that have developed or implemented a complete OLM program for their green spaces, though IPM programs are more common. As practice shifts away from conventional approaches, advocacy groups and university extensions will likely be at the forefront of this effort, and municipalities will also play a major role in influencing change as they continue to seek initiatives and programs that align with organic goals. Finally, land managers and community members need to be further educated on best practices, as well as the costs and benefits of organic land management.

Currently, sharing of information between practicing communities is limited. Most organic networks are regional and, where they do exist, are often geared toward management in rural areas, especially farming and gardening. Heavily used parks, especially those in cities, are a particularly important piece of this equation, and park managers are uniquely poised to be leaders in this change.

See detailed references here:

- EPA Releases Draft Risk Assessments for Glyphosate
- IARC Monographs on the Identification of Carcinogenic Hazards to Humans
- B. A. Woodcock et. al., "Country-Specific Effects of Neonicotinoid Pesticides on Honey Bees and Wild Bees," Science 30 Jun 2017, Vol. 356, Issue 6345, pp. 1393-1395


CRUZAN. FRESH
THE GUAVA
Martignetti
SURFACE

Largest City in Maine Joins City-Wide Shift to Organic Land Management, According to Beyond Pesticides

NEWS PROVIDED BY
Beyond Pesticides →
Jan 04, 2018, 05:01 ET

WASHINGTON, Jan. 4, 2018 /PRNewswire-USNewswire/ -- Joining the national movement to require organic land management of its public and private property, the City Council of Portland, Maine voted unanimously yesterday to restrict hazardous pesticides from its jurisdiction. The legislation is similar to an ordinance passed by the City of South Portland in 2016 and adopted by ballot initiative by the Town of Ogunquit, Maine in 2014. The law will take effect on July 1, 2018.

Outside of Maine, the City of Portland now joins other jurisdictions in the state of Maryland (Montgomery County and the City of Takoma Park), which have taken similar action. Twenty-eight jurisdictions throughout Maine have restricted pesticides in various ways, including on public property, but the comprehensive Portland-style ordinance stops virtually all hazardous pesticide use in the community, on private and public property.

Maine is one of **seven states** that has not, by state legislative action, taken away (or preempted) local authority to restrict pesticides more stringently than the state. However, the chemical industry is working to take away local authority in those states and last year tried unsuccessfully to push statewide preemption legislation in Maine.

Leading the effort in Portland is the group Portland Protectors, which led a 3-year effort to advance the new law. In support of the legislation, the Council received a letter from 31 medical and science professionals, who said, "As health professionals, it is our contention based on the

Item 5(b)
10/3/2019

From: Roger Williams <RWilliams@cityofpensacola.com>
Sent: Tuesday, September 10, 2019 8:30 AM
To: Derrik Owens <DOwens@cityofpensacola.com>
Cc: Don Kraher <DKraher@cityofpensacola.com>
Subject: RE: Information Request from Environmental Advisory Board

Please see the attached MSD sheet for the material used by our contractor for our retention/detention ponds.

From: Derrik Owens <DOwens@cityofpensacola.com>
Sent: Friday, September 06, 2019 3:58 PM
To: Roger Williams <RWilliams@cityofpensacola.com>
Subject: Fwd: Information Request from Environmental Advisory Board

Pla get with me on this Monday

Sent from my iPhone

Begin forwarded message:

> **From:** Don Kraher <DKraher@cityofpensacola.com>
> **Date:** September 6, 2019 at 11:36:33 AM CDT
> **To:** Derrik Owens <DOwens@cityofpensacola.com>
> **Cc:** Elaine Mager <EMager@cityofpensacola.com>, Sonja Gaines <SGaines@cityofpensacola.com>, "'abcnrr@yahoo.com'" <abcnrr@yahoo.com>, Kerrith Fiddler <KFiddler@cityofpensacola.com>
> **Subject: Information Request from Environmental Advisory Board**
>
> Derrik
>
> Request for information from the EAB:
>
> 1. Can you provide documentation regarding what chemicals are used (either by City Staff or contractors) in and around retention ponds and areas of public access to control vegetation and grass.
>
> 2. Can you advise who (if anyone) does mosquito spraying within the City?
>
> Thank you in advance.
>
> Don
>
> *Don Kraher*
> *Council Executive*
> Office of the City Council

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:
ALBAUGH, INC.
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:
(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME : **AQUA STAR**
CHEMICAL NAME : Isopropylamine Salt of Glyphosate
CHEMICAL FAMILY : Herbicide
PRODUCT CODE : EPA Reg. No. 42750-59

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Isopropylamine Salt of Glyphosate*	53.8 %	38641-94-0	NOT EST	NOT EST
Inert Ingredients	46.2 %	n/a	n/a	n/a

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Moderate eye irritant.
PHYSICAL HAZARDS: May react with metals such as galvanized or mild steel to produce hydrogen gas which could form a highly combustible gas mixture.
ENVIRONMENTAL HAZARDS: Moderately toxic to fish and aquatic pants. May be toxic to non-target plants.

SECTION 4 - FIRST AID MEASURES

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (method): Will not flash.
FLAMMABLE LIMITS: Not Established
FIRE AND EXPLOSION HAZARD: May decompose in fire due releasing irritating or toxic gases.
EXTINGUISHING MEDIA: Use water spray, foam or dry chemical.
FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical extinguishing systems recommended to prevent environmental damage due to water run off.
FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece. Full firefighting turn-out gear (Bunker gear).
HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, nitrogen oxides, phosphorous oxides.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.
LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash, or lime.

Wear appropriate personal protection equipment. (See Section 8 Exposure Controls, Personal Protection.)

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear appropriate safety equipment when handling.
STORAGE: Store in original container with lid tightly closed. Keep away from food, feed and drinking water. Store above 15° F (-10 C). If crystallized, warm to 80-90 F and redissolve by shaking container before using product.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 hour TWA, ppm): Refer to Section 3.

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:
EYE PROTECTION - Safety goggles when mixing, loading or cleaning equipment is recommended.
CLOTHING – Long-sleeved shirt and long pants, Shoes plus socks,
GLOVES – Waterproof gloves when mixing, loading or cleaning equipment is recommended.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Clear yellow to amber liquid.
ODOR: Slight amine like.
SPECIFIC GRAVITY: 1.18 – 1.24 g/ml (9.85 – 10.40 lb/gl)*
pH: 4.6
VAPOR PRESSURE: Unknown
WATER SOLUBILITY: Emulsifies.

*Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable, however may decompose if heated.
CONDITIONS TO AVOID: Avoid temperatures above (115°F, 46°C) and below 25°F (-5°C).
INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers or bases, mild and galvanized steel.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Nitrogen oxides, phosphorous oxides.
HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD_{50} (rat)	- > 5,000 mg/kg
Dermal LD_{50} (rat)	- > 5,000 mg/kg (male)
Inhalation LC_{50} (rat)	- > 2.5 mg/L
Eye Irritation (rabbit)	- Moderate
Skin Irritation (rabbit)	- Mild
Sensitization (guinea pig)	- Non-sensitizer

CARCINOGEN STATUS:
OSHA - Not listed
NTP - Not listed
IARC - Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* or *in vitro* studies.
ADDITIONAL DATA: None

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

FISH TOXICITY: (Glyphosate acid)
96 hour LC_{50}, Rainbow trout – > 1,000 mg/L
96 hour LC_{50}, Bluegill – > 1,000 mg/L

AVIAN TOXICITY: (Glyphosate acid)
Oral LD_{50}, Bobwhite quail – > 3,800 mg/Kg
Oral LD_{50}, Mallard duck – Unknown

BEE: Non-toxic

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal.

WASTE: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue.
CONTAINER:
(Plastic containers): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
(Refillable containers): Do not reuse this container except for refill in accordance with a valid Albaugh

Repackaging or Toll Repackaging Agreement. If not refilled or returned to the authorized repackaging facility, triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
PESTICIDE DISPOSAL: Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated by DOT

DOT HAZARD CLASS: N/A
UN NUMBER: N/A
DOT PACKING GROUP: N/A
DOT PRIMARY/SECONDARY LABEL: N/A
DOT PRIMARY/SECONDARY PLACARD: N/A
DOT EMERGENCY RESPONSE GUIDE #: N/A

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:
311/312 Hazard Categories – Immediate Health
313 Toxic Chemicals – None known

CALIFORNIA PROP 65: Not listed

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	2
	FLAMMABILITY	1
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

REVISED DATE: September, 2011
REFERENCE: Revision to Section 12 Ecological Information for fish toxicity values

Item 5(b)
10/3/2019

From: Roger Williams <RWilliams@cityofpensacola.com>
Sent: Tuesday, September 10, 2019 10:00 AM
To: Don Kraher <DKraher@cityofpensacola.com>
Cc: Kerrith Fiddler <KFiddler@cityofpensacola.com>
Subject: Herbicide used around ponds

The city has three ponds that have public access, Bill Gregory, Admiral Mason and Corrine Jones. The remainder of our ponds are fenced and have locked gates. This herbicide is typically used on wet ponds that have lift stations or fountains. The screen on the pumps have to be kept clean of vegetation.

Roger Williams
Public Works and Facilities
Storm Water Facilities Manager
2757 North Palafox Street
Pensacola, Florida 32501
Office 850-436-5530

rwilliams@cityofpensacola.com
For Non-Emergency Citizen Requests, Dial 311 or visit Pensacola311.com

Item 5(a)
10/3/2019

From: Derrik Owens <DOwens@cityofpensacola.com>
Sent: Wednesday, September 11, 2019 3:14 PM
To: Don Kraher <DKraher@cityofpensacola.com>
Cc: Kerrith Fiddler <KFiddler@cityofpensacola.com>; Roger Williams <RWilliams@cityofpensacola.com>
Subject: RE: Information Request from Environmental Advisory Board

Hey Don,
Pls see responses below...

From: Don Kraher
Sent: Friday, September 06, 2019 11:37 AM
To: Derrik Owens <DOwens@cityofpensacola.com>
Cc: Elaine Mager <EMager@cityofpensacola.com>; Sonja Gaines <SGaines@cityofpensacola.com>; 'abcnrr@yahoo.com' <abcnrr@yahoo.com>; Kerrith Fiddler <KFiddler@cityofpensacola.com>
Subject: Information Request from Environmental Advisory Board

Derrik

Request for information from the EAB:

1. Can you provide documentation regarding what chemicals are used (either by City Staff or contractors) in and around retention ponds and areas of public access to control vegetation and grass. We typically don't use chemical agents in dry retention ponds and are typically just maintained through mechanical means (mowing, weed eaters, etc.)

2. Can you advise who (if anyone) does mosquito spraying within the City? Escambia County does this....

Thank you in advance.

Don

Don Kraher
Council Executive
Office of the City Council
222 W. Main Street
Pensacola, FL 32502
(850) 435-1686 – Office
(850) 384-6363 – Cell

City of Pensacola