The following page(s) contain the backup material for Agenda Item: Ordinance 356-H creating a new Article IV in Chapter 11 of the City Code entitled "Expanded Polystyrene and Plastics Regulation"; providing findings, intent, and definitions; creating Division I related to regulations for the distribution of expanded polystyrene products by food service providers on City-owned property and rights-of-way; creating Division II related to regulations for the distribution of single-use plastic straws by food service establishments; and providing an effective date. Please scroll down to view the backup material.

AN ORDINANCE OF THE CITY OF ST. PETERSBURG, FLORIDA, CREATING A NEW ARTICLE IV IN CHAPTER 11 OF THE CITY "EXPANDED ENTITLED CODE PLASTICS POLYSTYRENE AND PROVIDING FINDINGS. **REGULATION**": CREATING INTENT AND **DEFINITIONS:** DIVISION I RELATED TO REGULATIONS FOR DISTRIBUTION OF EXPANDED THE PRODUCTS BY FOOD POLYSTYRENE SERVICE PROVIDERS ON CITY-OWNED AND **RIGHTS-OF-WAY**; PROPERTY CREATING DIVISION Π RELATED TO REGULATIONS FOR THE DISTRIBUTION OF SINGLE-USE PLASTIC STRAWS BY FOOD ESTABLISHMENTS: AND SERVICE PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of St. Petersburg declares that it is in the interest of the public health safety and welfare of its residents and visitors to reduce litter and pollutants on the land and in the waters of the City; and

WHEREAS, the City of St. Petersburg's Sustainability Mission Statement is to make St. Petersburg a city to live, work, and play through innovative and collaborative sustainability practices; and

WHEREAS, the Mayor's Executive Order 2017-01 calls for the citywide goals of zero waste and the protection and enhancement of the city's environment including bay, beaches, and waterways by implementing policies and business/organizational assistance that reduce hazardous materials like polystyrene and straws; and

WHEREAS, the City Council wishes to continue the City's green legacy of leadership by adopting ordinances and policies that will act to conserve natural resources, contribute to the longterm economic vitality of the Tampa Bay region, and reduce waste and pollution in the environment; and

WHEREAS, the City Council recognizes that while certain single-use straws are recyclable, most are not recycled and often end up in overburdened landfills, waterways and the ocean; and

WHEREAS, according to a 2015 study by the National Center for Ecological Analysis and Synthesis, an estimated 8 million metric tons of plastic waste ends up in the world's oceans every year and the quantity of plastic waste available to enter our oceans is anticipated to increase exponentially if we do not change our current supply, demand, and waste management strategies; and WHEREAS, improperly discarded plastic straws and stirrers are the fifth most common plastic in ocean clean-ups, posing a direct threat to marine life; and

WHEREAS, single-use plastic straws and stirrers are most often not recyclable or biodegradable; instead they fragment into microplastics, which are then ingested by marine life and other wildlife, thus harming or killing them; and

WHEREAS, according to research presented by Dr. David Hastings of Eckerd College on June 14, 2018, approximately nine trillion pieces of microplastic exist in Tampa Bay; and

WHEREAS, the City finds that there are alternatives to plastic straws which are reasonable, less harmful to the natural environment, and can be composted or biodegrade in landfill; and

WHEREAS, according to the Florida Department of Environmental Protection, over 45 million tons of waste was collected in Florida municipal solid waste systems during 2017; and

WHEREAS, the EPA identified that when expanded polystyrene, which is made of fossil fuels and synthetic chemicals, enters our waterways and becomes marine debris, it can "have serious impacts on human health, wildlife, the aquatic environment, and the economy"; and

WHEREAS, expanded polystyrene is not recyclable or biodegradable; instead it also fragments into microplastics, which are then ingested by marine life and other wildlife, thus harming or killing them; and

WHEREAS, single-use plastic straws and expanded polystyrene products have little value and constitute a portion of the litter and pollution in the City's waterways, rights-of-way, parks, and other public places; and

WHEREAS, the City Council Health, Energy, Resiliency and Sustainability Committee ("Committee") has considered information related to this matter, as presented at numerous public meetings with scientists, community organizations, and local businesses; and

WHEREAS, the City of St. Petersburg will serve as a leader in environmental protection by prohibiting the distribution and use of plastic drinking straws and by prohibiting the distribution and use of expanded polystyrene food service articles by its contractors, vendors, and special event permittees in City facilities and rights of way and on City property including in City parks and on City marinas, piers, and docks.

The City of St. Petersburg, Florida does ordain:

**Section One.** The St. Petersburg City Code is hereby amended by adding a new Article IV to Chapter 11, to read as follows:

#### **ARTICLE IV. – EXPANDED POLYSTYRENE AND PLASTICS REGULATION**

#### Sec. 11-101. - Findings and Intent.

The Council finds that the reasonable control of the distribution of expanded polystyrene products (sometimes called Styrofoam, a Dow Chemical Co. trademarked form of polystyrene foam insulation) and single-use plastics in response to the growing issue of these items ending up in overburdened landfills, waterways, and the ocean is required to protect the public health, safety, and welfare. It is the intent and purpose of this Article to provide and maintain for the citizens and visitors of the City healthy and aesthetically-pleasing experiences, while simultaneously advancing the City's sustainability goals and contributing to its long-term economic vitality by reducing the introduction of these non-biodegradable and environmentally deleterious products into surrounding ecosystems and landfills. The provisions of this Article are not intended and shall not be construed as superseding or conflicting with any statutory provisions relating to, or rules and regulations promulgated by, the State department of agriculture and consumer services, but shall be construed as implementing and assisting the enforcement thereof.

#### Sec. 11-102. – Definitions.

As used in this Article, the following words and phrases shall have the following meanings ascribed to them respectively, regardless of whether or not the words and phrases are capitalized:

*City contractor* shall mean any person in privity of contract with the City conducting business on City-owned property or within the City right-of-way, including but not limited to: contractors, vendors, lessees, concessionaires, and operators of a City facility or property.

Distribute shall mean to sell, use, offer for sale or use, or provide for sale or use.

*Drinking straw* shall mean a tube intended for transferring a beverage from its container to the mouth of a drinker.

*Drive-through food order* shall mean food and/or beverage items that a customer purchases via a drive-through at a food service establishment and consumes away from the premises.

*Expanded polystyrene* shall mean blown polystyrene and expanded and extruded foams that are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead foam), infection molding, foam molding and extrusion-blown molding (extruded foam polystyrene).

*Expanded polystyrene product* shall mean food containers, plates, bowls, cups, lids, trays, coolers, ice chests, "clamshells," and all similar articles that consist of expanded polystyrene.

*Food service establishment* shall mean any vendor within the City of St. Petersburg that sells food and/or beverages for consumption by customers on, near or off its premises with the exception of hospitals, grocery stores, and convenience stores.

*Food service provider* shall mean any person listed in Section 11-103 of this Division that distributes food or beverages.

Person see Section 1-2.

Right-of-way see Section 25-299(a).

*Single-use* shall mean a product that is designed to be used only once in its same form and then disposed of or destroyed.

### DIVISION I. – REGULATION OF EXPANDED POLYSTYRENE ON CITY-OWNED PROPERTY AND CITY RIGHT-OF-WAY

Sec. 11-103. – Prohibition of the distribution of expanded polystyrene products on Cityowned property or rights-of-way.

The following persons shall not distribute expanded polystyrene products in conjunction with food or beverage services on City-owned property, or within or abutting the City right-of-way:

- a) City contractors.
- b) Pushcart vending permittees pursuant to Section 16.70.030.1.5.
- c) Sidewalk café permittees pursuant to Section 16.70.030.1.7.
- d) Mobile food establishment permittees pursuant to Section 16.70.030.1.14.
- e) Food truck rally permittees pursuant to Section 16.70.030.1.15.
- f) Park permittees pursuant to Section 21-31.
- g) Outdoor public assembly permittees pursuant to Chapter 25, Article II.
- h) Minor easement permittees pursuant to Chapter 25, Article VII.

#### Sec. 11-104. – Exemptions.

The following are exempt from the prohibition set forth in Section 11-103 of this Division:

- a) Pre-packaged foods that food service providers distribute to their customers and that have been filled and sealed prior to receipt by the food service provider.
- b) Expanded polystyrene products used for the storage of raw meat, pork, poultry, fish, and seafood products by a food service provider.
- c) Any city contract, lease, or concession agreement entered into prior to the effective date of this Division shall not be subject to the requirements of this Division, unless the city vendor/contractor voluntarily agrees thereto.

#### Sec. 11-105. - Enforcement; penalties.

a) From [insert *effective date*] until [insert *effective date* + *one year*], no penalties shall be issued by the City for a violation of Section 11-103.

- b) After [insert *effective date* + *one year*], the following civil citations shall be issued by the City for a violation of Section 11-103:
  - 1) First violation. Written warning.
  - 2) Second violation within one (1) year after issuance of the first violation. \$40 fine.
  - 3) Third violation and any subsequent violation within one (1) year after issuance of the first violation. \$80 fine.
- c) A person found to be in violation of Section 11-103 shall have thirty (30) calendar days from the issuance of a written warning or violation notice to correct the violation.
- d) For a continuing violation, each day a person shall continue to violate or fail to comply with Section 11-103 shall be deemed and considered a separate violation of this Division.
- e) Nothing stated herein shall be construed as a limitation to the City's remedies available to it through its contract, lease, permit, or other relationship with a food service provider.

#### Secs. 11-106-11-109. - Reserved.

#### **DIVISION II. – REGULATION OF SINGLE-USE PLASTIC DRINKING STRAWS**

#### Sec 11-110. - Distribution of Single-Use Plastic Straws

- a) From [insert *effective date*] until [insert *effective date* + *one year*]:
  - 1) No food service establishment shall distribute a single-use plastic drinking straw to any customer except upon a customer's specific request.
  - 2) Drive-through food orders are exempt from the requirements of this subsection.
- b) After [insert *effective date + one year*]:
  - 1) No food service establishment shall distribute a single-use plastic drinking straw to any customer.

#### Sec. 11-111. - Enforcement; penalties.

- a) From [insert *effective date*] until [insert *effective date* + 3 *months*], no penalties shall be issued by the City for a violation of Section 11-110.
- b) After [insert *effective date* + 3 *months*], the following civil citations shall be issued by the City for a violation of Section 11-110:
  - 1) First violation. Written warning.
  - 2) Second violation within one (1) year after issuance of the first violation. \$40 fine.
  - 3) *Third violation and any subsequent violation within one (1) year after issuance of the first violation.* \$80 fine.
- c) A person found to be in violation of Section 11-110 shall have thirty (30) calendar days from the issuance of a written warning or violation notice to correct the violation.

d) For a continuing violation, each day a person shall continue to violate or fail to comply with Section 11-110 shall be deemed and considered a separate violation of this Division.

#### Sec. 11-112. - Sunset Date.

Section 11-110(a) of this ordinance shall expire at 12:01 a.m. on [insert *effective date* + *one year*], which is one year after the effective date of this ordinance; provided that, for purposes of enforcing penalties for violations of Section 11-110(a) occurring prior to such expiration date, Section 11-110(a) shall survive such expiration date.

#### Secs. 11-113-11-115. - Reserved.

Section Two. Coding. As used in this ordinance, language appearing in struck-through type is language to be deleted from the City Code, and underlined language is language to be added to the City Code, in the section, subsection, or other location where indicated. Language in the City Code not appearing in this ordinance continues in full force and effect unless the context clearly indicates otherwise. Sections of this ordinance that amend the City Code to add new sections or subsections are generally not underlined.

**Section Three.** Severability. The provisions of this ordinance shall be deemed severable. If any provision of this ordinance is determined to be unconstitutional or otherwise invalid, such determination shall not affect the validity of any other provisions of this ordinance.

Section Four. Effective Date. Effective Date. In the event this ordinance is not vetoed by the Mayor in accordance with the City Charter, it shall become effective on the fifth business day after adoption unless the Mayor notifies the City Council through written notice filed with the City Clerk that the Mayor will not veto the ordinance, in which case the ordinance shall take effect immediately upon filing such written notice with the City Clerk. In the event this ordinance is vetoed by the Mayor in accordance with the City Charter, it shall not become effective unless and until the City Council overrides the veto in accordance with the City Charter, in which case it shall become effective immediately upon a successful vote to override the veto.

City Attorney (designee) 00407692.docx

### OVERVIEW OF SINGLE-USE PRODUCT CHALLENGES

An estimated 8 million metric tons of plastic waste ends up in the world's oceans every year (Jambeck, 2015). The quantity of plastic waste available to enter our oceans is anticipated to increase exponentially if we do not change our current production and waste management strategies.

Keep America Beautiful conducted a study comparing the composition of roadway litter in 2009 to litter in 1969, and the results show that paper, metal, and glass litter decreased by more than 78 percent each, and plastic litter increased by 165.4 percent.

Florida is one of ten states with legislation intending to preempt local jurisdictions from passing local regulations related to plastics. At the time the bill was passed (2008 and Section 403.7033 of the Florida Statutes states), it was pending a study request. The state legislature asked Florida Department of Environmental Protection (FDEP) to conduct a study so that regulations to reduce or eliminate plastics could be applied consistently and effectively across the state, if needed.

FDEP submitted a report entitled Retail Bags Report for the Legislature in 2010 which demonstrated the issues and offered examples of how other places were addressing the issue. The Legislature has still not yet adopted any report or recommendations.

As a result, at least 44 local governments in Florida have supported or passed resolutions banning or regulating single-use plastics in some capacity.

The Florida Retail Federation challenged the City of Coral Gable's ban on expanded polystyrene food containers, but the Miami-Dade Circuit Court Judge overturned the state's preemption, upholding the ban. The Florida Retail Federation filed an appeal, and the case is pending.

While litigation continues, the lack of state or local regulation is exacerbating litter problems in local waterways. According to FDEP, Florida residents and tourists generated nearly two tons of waste per resident in 2016. St. Petersburg represents about 40 percent of the population growth in Pinellas County and can significantly impact litter reduction with education, regulation, and enforcement.

### TIMELINE OF HERS COMMITTEE WORK ON SINGLE-USE PRODUCTS TO DATE

(Includes plastic straws, polystyrene, and paper and plastic bags)

### July 2017

Committee discussions began in July 2017 by discussing 2010 FDEP and more recent NOAA 2017 marine debris reports and data including economic, environmental and social impacts. The committee also discussed local outreach, events already implementing solutions to reduced plastics, and considerations for transitioning from single-use plastic.

### April 2018

Local organizations attended committee to discuss a plastic straw ban which resulted in the kickoff of a voluntary "No Straw" campaign led by Council Member Driscoll, I Love the Burg.com, local organizations like Surfrider and Rise Above Plastics Coalition, as well as many local businesses.

### May 2018

No Straw St. Pete Campaign led by Council Member Driscoll and in collaboration with I Love the 'Burg and Bank OZK (may have started earlier in April and into May).

### June 2018

Scientists from the USF College of Marine Science attended committee and gave presentations providing additional scientific information on microplastics in Tampa Bay as well as references, policies, and collaborations to reduce environmental and health impacts of plastics pollution. **Presentations are included in Attachment A.** 

### July 2018

City Council unanimously supports voluntary plastic straw request only resolution.

### August 2018

Committee reviews narrowed and simplified options for addressing single-use plastic straws, expanded polystyrene, and plastic bags and provides direction to further narrow approaches for all and develop draft ordinances for plastic straws and polystyrene. Committee direction to return with additional information on bags with a focus on a fee structure.

### September 2018

Committee reviews draft ordinances for straws and polystyrene supplemented with information on enforcement from Codes Compliance Director. Committee reviews additional information on fee structures for reducing plastic bags while possibly building a fund to address the environmental issues caused by single-use plastics litter. Direction to staff to revise draft ordinances mainly related to enforcement and exemptions. Direction to staff to provide better assurance and build confidence in the education and outreach during the transition for all straws, polystyrene, and bags, especially targeting areas less active in these types of sustainability efforts.

### October 2018

Staff presented additional detail on environmental consequences of paper and plastic bags. Based on input from committee in August to narrow in on fees rather than bans and based on business input about the additional cost of paper bags along with the environmental consequences and the fact that a plastic-only ban in other cities drove customers to paper slowing the shift of using reusable bags, staff developed the bag fee approach for both materials. Staff also provided more detail on outreach ideas, plans, and workload for maximizing business education. Committee asked staff to bring back a draft ordinance for the fee structure. November 2018

Committee reviewed draft ordinance for fees on paper and plastic bags with additional information on the fee structure. Staff and Committee discussed business outreach to grocery stores since the last committee meeting. Committee asked staff to bring back more information on bags to a January HERS committee meeting with details on a bag fee study and how third-party delivery companies handle municipal bag fees. Committee recommended that the ordinance covering straws and polystyrene advance to City Council.

### SINGLE-USE PLASTIC STRAWS AND POLYSTYRENE: TRANSITION & ENFORCEMENT

The primary goals of the program are to educate and to reduce litter and waste, not to penalize businesses and customers. That said, an appropriate and fair process must be as clear as possible and in place with trained and informed city staff. The following list generally summarizes the transition and enforcement approach for single-use plastic straws and expanded polystyrene (city facilities, city contractors, and city right-of-way including parks, sidewalk cafes and more). The details are included in the ordinances for each element.

- One-year transition period for straws and expanded polystyrene bans
- Intensive education and outreach for one-year and on-going
- Once in effect:
  - First violation. Written warning.
  - Second violation within one (1) year after issuance of the first violation. \$40 fine.
  - Third violation and any subsequent violation within one (1) year after issuance of the first violation. \$80 fine.
  - $\circ$  Thirty (30) calendar days from the issuance of a civil citation to correct the violation.
  - For a continuing violation, each day a person shall continue to violate or fail to comply shall be considered a separate violation.
- Code enforcement staff will generally only be activated to visit a site if they receive formal complaints or inquiries.
- Additional educational resources and assistance can be deployed to businesses that receive a written warning

### SINGLE-USE PLASTIC STRAWS, POLYSTYRENE, AND CARRY OUT BAGS: OUTREACH + EDUCATION (note: bag regulation pending further committee consideration)

### **Outreach Prior to Ordinance Development**

- Multiple discussions with other cities and waste resources staff for lessons learned
- Collaboration with Chamber of Commerce, retailers, and USFSP on a business survey results not statistically significant, but anecdotal direction given:
  - Strong business interest in learning more about sustainability, bulk purchasing, and marketing sustainable business practices
  - Support & engagement more from downtown/Central Ave. independent businesses
  - Concerns about feasibility and cost
  - Some business opposition to bans or any government regulation
  - Keen support from active students and a girl scout troop
- Invitations through Florida Retail Federation (FRF) to Walgreens, Walmart, Publix, Novolex (bag manufacturer near Orlando and Jacksonville)
  - o In person attendance by Publix, Walgreens, Walmart, and FRF
- Misc. initial one on ones w/ restaurants, retail, local bag manufacturer, and Tyrone Square Mall
- Brief overview at Deuces Live monthly meeting
- Indie Market 70 vendors plastic free in 2017 commitment
- Localtopia education on plastics; requirements for compostables
- Earth Day education on plastics; requirements for compostables
- Other Ocean-Friendly Businesses in St. Pete
- Treasure Island Ocean-Friendly Business
- Social media outreach 1,500+ engaged in comments/shares; 80,000 reached via shares according to FB stats
- Radio show on 88.5wmnf 7/24/2017
- Additional initial contacts w/business associations (email/telephone/in person if possible) expected no later than October 18, 2018: Email to all, follow up with calls to Skyway Marina District, 16<sup>th</sup> Street South Corridor, Deuces Live, Dr. MLK Corridor Business District, Edge, Grand Central, and Innovation Districts.

### 2019/Transition Period Outreach & Education Draft Outline

Jan 2019:	Adopt Ordinance and Develop Materials			
Jan 2019:	Codes Compliance: Enforcement Workshop			
Jan – June 2019:	Develop Starter Alternative Product & Supplier Information			
Aug 2019:	Inserts w/Business Tax Annual Licenses and Permits			
Jan - Dec 2019:	Monthly Business Outreach (additional information in sections below)			
Jan - Dec 2019:	Develop and evolve supplemental programs and assistance for business from other examples and feedback and for citizens and customers			

### Starter List of Outreach Materials

City departments will work together to develop a variety of materials accessible on the city and partner websites, hard copies, and other media appropriate to organization, event, and audience. The starter list below summarizes materials that may/can be developed, combined, and built upon.

- Overview and FAQ for ordinance(s) for straws, polystyrene
- Overview of environmental and economic considerations
- Consumer guide to city regulations and reducing consumption of single-use products (perhaps reference residential pilot compost program pending approval)
- Business resources transitioning to alternative products, resources, references/information, consumer messaging assistance (flyers to post or other) available programs, if any (i.e. green business scorecard and marketing; bulk purchase resources);
- Business Tax insert w/information
- Youth information and activities
- Lesson plans/activities for teachers/schools (World Oceans Day is one resource.)

### **Example List of Programs & Events**

City departments and external collaborators can work together to make accessible, effective programs and events. The starter list below summarizes ideas and examples of other successful programs that could work in St. Pete.

**Community events & films for public screening:** Public events which are hosted in the community for the community can have a wide-reaching educational impact. Staff recommends combining documentary films about plastic waste with fun activities and snacks. In addition, partnering with community centers, parks and recreation centers, businesses, and churches across the city. Just a few interesting films are listed below:

- <u>Plastic Bag</u>: 2009, Ramin Bahrami, Independent Television Service: An 18-minute awardwinning short film about a forlorn plastic bag that struggles with its immortality. <u>http://futurestates.tv/episodes/plastic-bag</u>
- <u>Bag It</u>: 2010, New Day Films: An educational and entertaining film about the effects of our plastic world. A shorter version, appropriate for school screenings, is also available. <u>https://www.newday.com/film/bag-it</u>
- <u>A Plastic Ocean</u>: 2016 by Craig Leeson: When he discovers the world's oceans brimming with plastic waste, a documentary filmmaker investigates the pollution's environmental impacts. <u>https://plasticoceans.org/about-film/</u>
- <u>Smog of the Sea:</u> 2017 by Ian Cheney: After years of hearing about the famous "garbage patches" in the ocean's gyres, the crew is stunned to learn that the patches are a myth: the waters stretching to the horizon are clear blue, with no islands of trash in sight. But as the crew sieves the water and sorts through their haul, a more disturbing reality sets in: a fog of microplastics permeates the world's oceans, trillions of nearly invisible plastic shards making their way up the marine food chain. <u>https://www.thesmogofthesea.com/</u>

- <u>Straws:</u> 2017 by Linda Booker: Documentary which provides a clear understanding of the problems caused by plastic pollution and empowers individuals to be part of the solution. <u>http://www.strawsfilm.com/</u>
- <u>Albatross</u>: 2018, Chris Jordan Midway Films: A disturbing film about the Pacific garbage patch and its effects on the birds of Midway Island. <u>https://www.albatrossthefilm.com/watch-albatross</u>

**Targeted neighborhood and business outreach:** While there are not likely resources to do a separate analysis, it stands to reason that areas or zip codes that typically have lower participation in sustainability, transportation, and other surveys as well as areas with lower recycling numbers may be areas to conduct a more targeted outreach approach. Input from community and business leaders can also help with focused efforts where needed.

**Bulk Purchasing and Co-Op:** Facilitate St. Pete Chamber and businesses in developing plans for bulk and co-op purchasing.

### Starter List of Collaborating Businesses & Organizations

The list below summarizes organizations that have either already been engaged in the effort to reduce single-use plastics, litter, and marine debris or communicated interest in collaborating.

- St. Pete Chamber of Commerce
- Visit St. Pete Clearwater
- Suncoast Rise Above Plastics Coalition of Organizations
- Tampa Bay Watch,
- Keep Pinellas Beautiful
- Girl Scouts
- Saturday Morning Market
- St. Petersburg Ocean Team: Marine Exploration Center of St. Petersburg Florida, NOAA-National Marine Fisheries Service, USF College of Marine Science, Florida Fish & Wildlife Conservation Commission, United States Geological Survey, Florida Institute of Oceanography, U.S. Coast Guard, City of St. Petersburg, SRI International, IOI-International Ocean Institute, USF St. Petersburg, USF-Research & Innovation, Eckerd College Marine Science Department, and the Tampa Bay Estuary Program.
- Publix Supermarket
- Various restaurants and businesses

### Affected/Potentially Affected St. Petersburg Businesses

The City's Business Tax Division shared the list of all active fiscal year 2018 business tax licenses (17,819 licenses). However, this number is not the number of businesses in the city. Many businesses are required to have multiple licenses depending on what occurs on the property. By removing duplicate licenses per business, the estimated number of identifiable brick-and-mortar businesses totaled 11,688. Additional breakdowns of businesses are summarized in the section or otherwise available. Also, additional detailed methods on business license categories and selecting affected businesses is available on request.

	# of Businesses			
Total Brick & Mortar Businesses	11,688			
Total Businesses Affected by Complete	1,898			
Ordinance(s)				
Businesses Affected by Bags Regulation	1,632			
Businesses Affected by Straws Regulation	656			
Businesses Affected by Polystyrene Regulation	250			

### **Estimated Affected Businesses**

By using the original list of licenses, staff identified which types of businesses were most likely to be affected by each regulation within the ordinance: straws, bags, and polystyrene. Approximately 1,900 businesses will be the most affected when considering the regulation of single-use products. Some businesses are affected by multiple portions of the ordinance.

The **straws regulation** is most likely to affect the classifications of businesses which pertain to food, drinks, and entertainment such as: amusement parlor, bakery, 'bar, cabaret, lounge, nightclub, bowling', caterer, catering vehicle, concessionaire, drive-in restaurant, game room, pool room, restaurant, takeout or delivery restaurant, and theater or stadium.

The businesses most likely to be affected by the **single use carry out bag fee regulation** currently being considered by the HERS Committee would be businesses which sell goods, such as: bakery, direct sales, retail, flea market merchant, flea market operator, pawnbroker, restaurant, retail distributor, retail establishment or sales, retail showroom, secondhand merchant/sales, and takeout or delivery restaurant.

The businesses affected by the **polystyrene regulation** operate specifically on public property, including: food trucks, push carts, sidewalk cafés, and ice cream trucks. Not included in this number are the many bricks-and-mortar restaurants that also vend and cater at special events on public property. At the time of obtaining a vending permit, an event permit from the parks department, or other permit for city co-sponsored events and special events on public property, the permittee shall be specifically informed of the polystyrene regulation.

While not necessarily how a targeted business outreach approach might be conducted, as a point of reference for City Council members, affected businesses are summarized below by council district.

Please note that these numbers are approximate due the standard error while mapping a large dataset. First, you see the total number of businesses within each council district. Next, you see the number of businesses in each district most likely to be affected by the straw regulation. Third, you see the number of businesses in each district most likely to be affected by the bag regulation. Lastly, the number of businesses in each district most likely to be affected by the polystyrene regulation. This number is based on sidewalk café permits only, as mobile food vendors are not tied to a specific location. Pushcart vendors are permitted to operate at specific locations on public property within a specified area within Districts 4 and 6 only.

	Council District							
	1	2	3	4	5	6	7	8
	Charlie	Brandi	Ed	Darden	Steve	Gina	Lisa Wheeler-	Amy
	Gerdes	Gabbard	Montanari	Rice	Kornell	Driscoll	Bowman	Foster
# of Businesses Located within Each Council District		1239	857	1924	626	1926	1643	1436
% of of Businesses City-wide		11%	8%	17%	6%	17%	14%	13%
# of Businesses Affected by the STRAWS Regulation		71	41	129	30	134	71	67
% of Businesses within the District affected by Straws Reg		6%	5%	7%	5%	7%	4%	5%
% of businesses affected city-wide by Straws Reg		11%	7%	21%	5%	21%	11%	11%
# of Businesses Affected by the BAGS Regulation		118	99	241	127	255	202	219
% of Businesses within the District affected by Bags Reg		10%	12%	13%	20%	13%	12%	15%
% of businesses affected city-wide by Bags Reg	19%	8%	6%	15%	8%	16%	13%	14%
# of Businesses Affected by the POLYSTYRENE Regulation		0	0	40	0	60	5	1
% of Businesses within the District affected by Polystyrene Reg		0.0%	0.0%	2.1%	0.0%	3.1%	0.3%	0.1%
% of businesses affected city-wide by Polystyrene Reg		0.0%	0.0%	37.7%	0.0%	56.6%	4.7%	0.9%

Estimated Affected Businesses by City Council District

Note: Marine Scientist Presentations Included in Attached Pages Below.

Attachment A: June 2018 Marine Scientist Presentations



## **Microplastics in Tampa Bay**

### St. Petersburg City Council

David Hastings, Ph.D. *hastindw@eckerd.edu* 



Eckerd College

June 14, 2018

### Global plastic production has grown 20x over 50 years



311 million tons plastic produ U.S. 33 million tons

Only 5-9% plastic recy

~ 10% of plastic ends up in



Plastic entering Santa Monica Bay after rain



# **Environmental Concerns**

- Persistent in marine environment.
- Can be ingested by marine filter feeders: copepods, shellfish, krill, sponges, some
- Ingestion can reduce feeding, false satial
- Microplastic particles adsorb surface actitoxins that bioaccumulate.
- Overall environmental impact unknown
  - 700 species affected by marine plastic
  - Kills millions of marine animals every year.

# Methods

### Plankton Net

### Discrete water sample

### <u>Sediment</u>



6

0

100 P11



### Examples of microplastics Tampa Bay

### Type of plastic for











■ fiber ■ bead ■ fragment ■ film

Fibers: 76% Fragments: Flakes: 5% Beads: 1%

# **Microplastics in Tampa Bay**

<u>Discrete water sample</u> Boca Ciega Bay 1: 2.2 pieces / L Boca Ciega Bay 2: 4.9 pieces / L



There are ~ 9 trillion pieces of microplastic in Tampa Ba

### Microplastics in Tampa Bay: sediments

Station	plastics/kg sediment				
15: Ybor Channel: Industrial/ urban	<b>793</b> (±25%)				
1: Mouth Alafia River	<b>720</b> (±5%)				
8: Middle Tampa Bay	<b>547</b> (±3%)				
10: Gulf of Mexico	<b>240</b> (±5%)				



Compare to **391 particles/kg** in sediments of Nieuwpoort Belgian k (Claessens 2011)



- Ease of single-use plastics is unusually tem – straws, bags, water bottles
- 500 million plastic straws used each day in
- Straws + stirrers 5<sup>th</sup> most common plastic i ocean clean-ups



### THE U.S. JUST BANNED MICROBEADS, THOSE TINY PLASTIC ENVIRONMENTAL DISASTERS IN YOUR FACE WASH

BY ZOE SCHLANGER ON 12/31/15 AT 3:09 PM



Dec 2015: Passage of Microbead-Free Waters Act of 2015

# Some plastic bans City, County, State

- Miami, FL (straws, 2018);
- Sea World, Ikea, Royal Caribbean, Alaska Airlines (straws)
- NYC (straws, pending);
- entire state CA (straw and bag ban, 2018, 2016, 2014);
- Seattle, WA (straw ban; 2018)
- City of Malibu, CA (straw and foam ban, 2018);
- Surfside Beach, SC (bag ban, 2018);
- Boston, MA (bag ban, 2017);
- Oahu, HI (bag ban, 2017);
- Coral Gables, FL (bag ban 2017);
- Culver City, CA (foam ban, 2017);
- Maui, HI (foam ban, 2017);
- Folly Beach, SC (bag, foam ban, 2016);
- San Diego, CA (bag ban, 2016);
- SF, CA (foam ban, 2016);
- Freeport, ME (bag ban, 2016);
- Miami Dade county (foam ban, 2016);



- Miami Beach, FL (foam ban, 2015);
- Oregon Public Schools (foam ban, 2015);
- San Luis Obispo, CA (foam ban, 2015);
- Cambridge, MA (bag ban, 2015);
- Newburyport, MA (bag ban, 2014);
- Portland ME; Chicago, IL (bag ban, 2014)
- SF, CA (bottled water ban, 2014);
- Sonoma County, CA (bag ban, 2014);
- Los Angeles, CA (bag ban, 2013);
- Culver City, CA (foam ban, 2013);
- Austin, TX (bag ban, 2012);
- Seattle (bag ban, 2011)
- Ban of single use plastics in EU
- <u>More than 60 countries</u> ban or fee use plastics

We can no longer use plastic—a material designed to last forever—to make products intended to be thrown away.



# Best solution?



... is prevention!

# Contact for more info

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- Kinsley McEachern; Imceachern@mail.usf



Presentation to City of St. Petersburg HEALTH, ENERGY, RESILIENCY AND SUSTAINABILITY C June 14, 2018

CJ Reynolds – cjreynolds@usf.edu Research Associate, Institute for Marine Remote Sensing, USF College of Marine Scienc Executive Director, International Ocean Institute-USA

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# Six Ways to Improve Your Heal





BE



- Eat a healthy diet
- Maintain a healthy weight







- Drink alcohol in mode
- Get adequate sleep



Association.

# **Conceptual Parallel to Plastic I**

### Drivers, causes and impacts are multi-faceted! Solo tactics a

- On the go, convenience-oriented lifestyle
- Plastic packaging \$290 billion-a-year business; supported by
- Most commonly littered products are plastics food/beverag cigarette butts
- Environmental harm concentrated toxins eaten by fish, wi and death
- Florida trends in residential growth + tourism growth = increased
- Littering costs (direct and indirect) are borne by local governe
- Cities should lead on coordinated, integrated public-private
- Systems change (education, incentives, policies, programs) i



# **International Policy Initiatives**

- Around the world national and regional governments are implementing single-use plastic reduction requirements, fees, bans and programs to increase waste recovery
- Smart businesses taking action



### Travel industry takes aim at reducing plastic waste

Nancy Trejos, USA TODAY Published 8:44 a.m. ET May 31, 2018 | Updated 5:22 p.m. ET May 31, 2018



# State Collaboration and Coordin

- Florida Marine Debris Reduction Action Plan
  - Consumer Debris workgroup to actively engage municipalities, tourism in 2019, obtain consensus and commitments
    - Upland litter tracking & reduction goals
    - Business and community education
    - Data sharing
    - Best practices, support supply-chain innovation

### FDEP CCCL Beach E

- ✓ Created by FWC & US
- Supports FDEP event
- Next steps: revise and businesses, local gove

### **FDEP Skip the Strav**

Tool kit to educate the





# The Last Straw in Florida

### **Other Florida cities with ordinances**

- <u>Surfside Ordinance</u>
- Miami Beach
- Fort Myers Beach:
  - prohibits distribution of plastic straws, with limited exceptions.
  - Enforced by warnings and fines
  - 90 days to comply, passed Nov 2017
  - Spring media stories businesses not impacted





# Supply Chain and Individual B Change

- People generally don't like rules but that doe rules are inherently wrong or bad
- People say reactionary things, their personal persona
- Cultural and business change requires consiste requirements, education, messaging, incentive disincentives
- Need business leader role models, peer pressu path forward....



# Facilitate Integrated Public an Efforts

- Ideas for HERS to support Healthy, Vibrant, Sustainable St. Pete
  - Summit: how to reduce products, targeted litter removal and increase recycling – economics, needed resources
  - Regular meetings with business and community services providers to define site-specific factors and prevention
  - Interagency meetings -- map all bins, dirty spots, quantify debris, drain locations and management efforts
  - Publicize amount, labor and COSTS for removal (city departments, businesses)
  - Talk with urban waterfront cities about their programs
    - <u>Sustainable Cleveland</u> 10 year program, annual summit
    - Philadelphia Zero Waste



# Questions?







# Resources: Litter Reduction an Debris Information

- Aquatic Trash Prevention: National Great Practices Comper
- International Marine Debris Conference 2018 Proceedings,
- NOAA Marine Debris Prevention Program
- <u>EPA Trash Free Waters</u>
- Plastic Challenges, the Circular Economy and Business, Augu
- <u>European Directive 2015/720 –</u>
  - Prevent or reduce the impact of packaging and packaging wast achieve sustainable reduction of lightweight plastic bags.



# Youth Engagement and Art







*Current Collections* sculp Steel, reclaimed debris and recycled plas swirling debris. Poynter Park. USF CMS, G and GA help create. Students at St. Pete S