ORD-34

OFFICE OF THE CITY ATTORNEY
Long Beach, California

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April 17, 2018

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Accept categorical exemption No. CE 18-035, and

Declare ordinance amending the Long Beach Municipal Code by adding Chapter 8.63 regulating the use of single-use food and beverage containers made of expanded polystyrene (EPS) foam, rigid polystyrene #6 and non-recyclable and non-compostable material for prepared food distribution in the City of Long Beach, read the first time and laid over to the next regular meeting of the City Council for final reading. (Citywide)

DISCUSSION

At its meeting of October 17, 2017, the City Council requested the City Attorney to develop an ordinance regulating the use of single-use food and beverage containers made of expanded polystyrene (EPS) foam, rigid polystyrene #6 and non-recyclable and non-compostable material for prepared food distribution in the City of Long Beach, and to complete any required review pursuant to the California Environmental Quality Act (CEQA) prior to submitting the ordinance.

Pursuant to the California Environmental Quality Act (CEQA), categorical exemption No. CE-18-035 was prepared and issued. (See Attachment.)

The ordinance is intended to reduce the environmental impacts related to single-use food and beverage containers made of expanded polystyrene foam and non-recyclable and non-compostable material for prepared food distribution in the City of Long Beach.

The ordinance's provisions include the following:

- Prepared food or beverages shall not be sold or distributed in any food service ware made of made of EPS foam, rigid polystyrene #6 and non-recyclable and non-compostable material in the City of Long Beach. The ban does not apply to food prepared or packaged outside of the City, provided such food is not altered or repackaged within the City. The ban does not apply to food brought by individuals for personal consumption to City facilities, such as City parks, nor does it apply to raw, uncooked meat, poultry, fish or eggs, unless provided for consumption without further food preparation, nor to fresh produce provided for consumption without food preparation or repackaging.

- Compliance with the ordinance will be phased in. Phase 1 applies to City facilities and City-permitted events three months after adoption (except those with multi-year permits, who must comply within one year of ordinance adoption). Phase 2 takes effect nine months after ordinance adoption, and applies to "large" food providers, defined as seating 101 persons or more, including franchises. Phase 3 applies to establishments seating 100 persons or fewer, and takes effect eighteen months after ordinance adoption.

- The ordinance will ban retail sales of polystyrene ice chests, polystyrene bean bags and polystyrene craft materials eighteen months after ordinance adoption.

- "Food Provider" means a person or place that provides or sells food within the City to the general public, including but not limited to grocery stores, supermarkets, restaurants, drive-throughs, cafes, coffee shops, snack shops, public food markets, farmers' markets, convenience stores, mobile food vendors, caterers and food trucks.

- Utensils (forks, knives, spoons and the like) and straws for take-away food items may be provided by food establishments only upon request.

- The Health Department will check establishments for compliance as part of their inspection process.

- An exemption may be granted for a maximum of one year upon a finding that compliance would create an undue hardship.

The Council's October 17, 2017 action also called for the City to conduct a study during implementation regarding the impacts of the ban; to study the purchase of "Big Belly"-type trash cans; and to explore incentive programs for compliance.

SUGGESTED ACTION:

Approve recommendation.

Very truly yours,

CHARLES PARKIN, City Attorney

By
AMY R. WEBBER
Deputy City Attorney

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Attachments: Ordinance
City of Long Beach Categorical Exemption No. CE 18-035

Categorical Exemption Report

CE 18-035

Polystyrene Food Packaging Ordinance

Categorical Exemption Report

prepared by
City of Long Beach
Planning Bureau
333 West Ocean Blvd., 5th Floor
Long Beach, California 90802

prepared with the assistance of
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93001

March 2018

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
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Polystyrene Food Packaging Ordinance

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Categorical Exemption Report

This report serves as the technical documentation of an environmental analysis performed by Rincon Consultants, Inc. for the proposed Polystyrene Food Packaging Ordinance (proposed ordinance) that would prohibit the use of single-use food and beverage containers made from expanded polystyrene (EPS) foam, rigid polystyrene #6, and non-recyclable and non-compostable material for prepared food distribution in the City of Long Beach. The intent of the analysis is to document whether the project is eligible for a Class 7 Categorical Exemption (CE) from the environmental review requirements of the California Environmental Quality Act (CEQA). Class 7 CEs apply to actions by regulatory agencies for the protection of natural resources.

The report provides an introduction, project description, and evaluation of the project's consistency with the requirements for a Class 7 CE. This includes an analysis of the project's potential impacts in the areas of air quality, greenhouse gas (GHG) emissions, hydrology and water quality, and utilities and service systems. The report concludes that the project is eligible for a Class 7 CE as it would involve procedures for the protection of the environment and would not result in a significant effect on the environment.

1. Introduction

The City of Long Beach proposes to adopt an ordinance that would prohibit the use of single-use food and beverage containers made from EPS foam, rigid polystyrene #6, and non-recyclable and non-compostable material for prepared food distribution. This prohibition would specifically apply to, but is not limited to, cups or drink ware, plates, bowls, trays, wrappers or wrapping, platters, cartons, condiment containers, clamshells, and any other container in or on which prepared foods are placed or packaged for consumption,[1] as well as polystyrene coolers and ice chests. Likewise, the ordinance prohibits the sale or distribution of polystyrene beads for crafts or as filler for bean bags on or after 18 months following adoption of the ordinance. The purpose of this ordinance is to regulate the use of polystyrene food packaging in order to reduce and prevent the presence of this type of litter in the environment, protect public health, and promote environmentally sustainable practices in the City.

The State CEQA Guidelines Section 15307 states that a Class 7 CE applies to actions taken by regulatory agencies as authorized by State law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment. Examples include, but are not limited to, wildlife preservation activities of the State Department of Fish and Game. Construction activities are not included in this exemption. Additionally, State CEQA Guidelines Sections 15300.2(a) through (f) list specific exceptions for which a CE does not apply. These exceptions are as follows:

a. **Location**. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to

[1] This does not include straws, cup-lids, or Utensils, nor does it include packaging for unprepared foods. However, the ordinance would require straws, lids, and utensils to be provided only upon request.

apply in all instances, except where the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

b. **Cumulative Impact**. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

c. **Significant Effect**. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

d. **Scenic Highways**. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

e. **Hazardous Waste Sites**. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

f. **Historical Resources**. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The project was evaluated in relation to these exceptions to confirm the project's eligibility for a Class 2 CE (Section 8 of this report). None of the exceptions would apply to the proposed project; therefore, the project is eligible for a Class 7 CE.

The project's consistency with the above requirements, including its potential effects on the environment in the areas of air quality, GHG emissions, hydrology and water quality, and utilities and service systems, was evaluated to confirm the project's eligibility for a Class 7 CE. As demonstrated in Section 8, the project would not result in an activity that would have a significant effect on the environment due to unusual circumstances (in accordance with Section 15300.2(c) of the CEQA Guidelines). In addition, none of the other exceptions according to Section 15300.2 would apply to the proposed project; therefore, the project is eligible for a Class 7 CE.

2. Project Background

In response to concerns regarding the environmental impacts of single-use polystyrene food packaging containers, the City of Long Beach has prepared a Draft Polystyrene Food Packaging Ordinance (see Draft Ordinance in Appendix A). Adoption of the proposed ordinance would be a discretionary action subject to the environmental review requirements of CEQA. Over 65 cities and counties in California have previously considered or passed similar ordinances within their respective jurisdictions (Surfrider Foundation 2017). These include, but are not limited to: Berkeley, Carmel, Dana Point, El Cerrito, Fairfax, Hermosa Beach, Laguna Beach, Malibu, Manhattan Beach, Monterey County, Oakland Palo Alto, San Clemente, San Francisco, Santa Cruz County, and West Hollywood.

3. Project Location

For the purposes of analysis, this document assumes that the proposed ordinance would apply to specified food providers distributing or selling prepared food at any location in the City of Long

Beach, including City-sponsored events, activities, and meetings open to the public. Figure 1 shows the regional location and Figure 2 shows the City's corporate boundaries.

4. Existing Food and Beverage Container Use Characteristics

The types and approximate amount of food and beverage containers currently available in Long Beach are discussed below.

Single-use Polystyrene Food and Beverage Containers

Polystyrene is a naturally transparent thermoplastic that is commonly used in a variety of consumer product applications, including consumer packaging (Creative Mechanism 2016). Similar to other plastics, polystyrene is made through the distillation of hydrocarbon fuels into lighter groups, where they're then combined with catalysts to create plastic. In general, polystyrene is inexpensive, readily available, and it glues, sands, cuts, and paints relatively easily (Creative Mechanism 2016). There are three major types of polystyrene including polystyrene foam, polystyrene plastic, and polystyrene film (Creative Mechanisms 2016). Polystyrene foam is generally found in one of two forms, expanded polystyrene (EPS) foam and extruded polystyrene (XPS) foam, both of which are often referred to as Styrofoam, although a potential misnomer.[2] Food and beverage containers and packing peanuts are generally made from EPS foam, while XPS foam is a higher density foam, which is typically used in applications like architectural building models (Creative Mechanisms 2016).

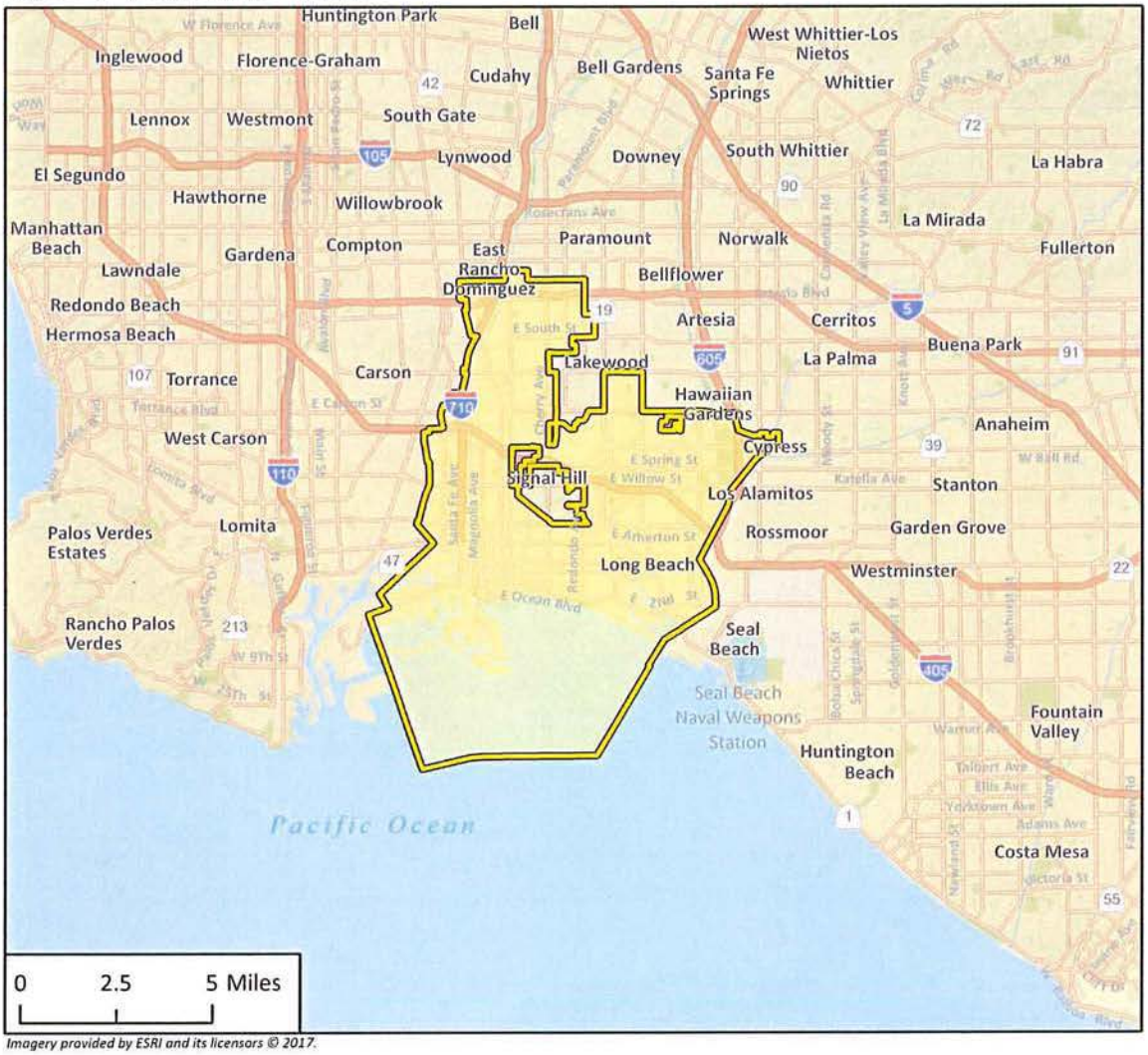
Polystyrene plastic is generally rigid and can be used for a variety of applications, including compact disc (CD) cases. With respect to food and beverage containers, rigid polystyrene plastic may be used for food containers such as yogurt containers or "Solo" brand cups. Polystyrene film on the other hand is generally vacuum-formed and used in packaging applications.

For consumers, polystyrene food and beverage containers offer an odorless, lightweight, insulated, sturdy package, but are intended for one use before disposal. Polystyrene is one of the most widely used forms of plastic in consumer goods and Californians alone use approximately 165,000 tons each year for packaging and food service purposes; however, only 0.2 percent of polystyrene food packaging is recycled (Gardner and Lee 2008, Clean Water Action California 2009). Additionally, according to a study conducted by the California Integrated Waste Management Board (CalRecycle) in 2004, 377,580 tons of polystyrene were produced in California (Clean Water Action California 2009). In addition, the national average of polystyrene use ranges from 1.8 to 7 pounds per person per year (The Resin Review 2012). Although the technology to recycle polystyrene exists, EPS foam food containers are rarely recycled because the items are not clean enough or the recycled material is not profitable enough. Likewise, polystyrene is non-biodegradable.

Littered polystyrene food packaging clogs storm drains and pollutes beaches, which results in millions of dollars in clean-up costs (Clean Water Action California 2009). Once littered, EPS foam food containers are easily blown into the storm drain system because their lightweight build enables them to break apart and be readily carried downstream into waterways, negatively impacting the environment and wildlife. They also end up entangled in brush, tossed along roadways, and washed up on beaches. Because EPS foam crumbles and is often difficult to collect, it can be a more substantial source of litter than other littered materials. This littering also impacts recreational areas

2 Styrofoam is a trademarked brand of closed-cell extruded polystyrene foam currently made for thermal insulation and craft applications that's owned and manufactured by The Dow Chemical Company.

Figure 1 Regional Location



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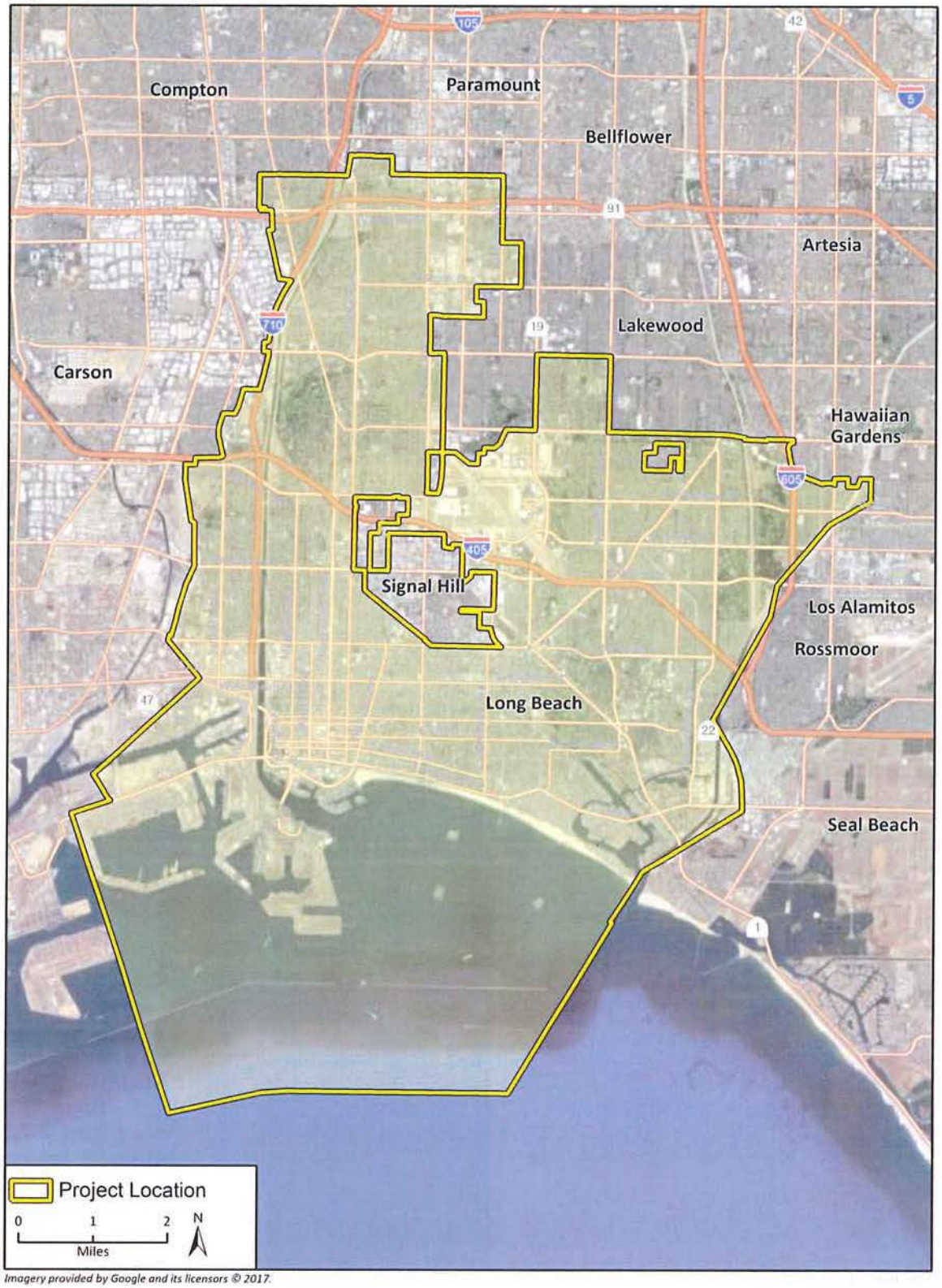
Project Location

Figure 2 Project Location



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and the quality of life for residents (Los Angeles County 2008). For example, in Southern California, cities have spent in excess of $1.7 billion cleaning trash out of storm drain systems leading to the Los Angeles River and Ballona Creek in order to comply with stormwater regulations (Clean Water Action California 2009). As part of that effort, the County of Los Angeles spends $18 million annually on litter cleanup and education (Clean Water Action California 2009). One study of beach debris, which surveyed 43 sites along the Orange County coast, found that EPS foam was the second most abundant form of beach debris (Clean Water Action California 2009). This has been an issue in Long Beach, where polystyrene litter has impacted beaches, waterways and the Pacific Ocean and is particularly challenging to collect and remove from the public beach and waterways in the City since polystyrene tends to break apart into smaller pieces. In 1999, approximately 300,000 tons of EPS foam was landfilled in California, which represents approximately 0.8 percent of total waste and translates to a total disposal cost of $30 million per year (Equinox Project 2017). Although the weight-based percentage is small, EPS foam is light, so it represents a larger percentage of the total waste stream by volume (Equinox Project 2017).

Recyclable Plastic Food and Beverage Containers

Recyclable plastic food and beverage containers are typically clear and durable, made from polyethylene terephthalate (PET) or other recyclable plastics such as polyethylene (HDPE), and intended for one use prior to being recycled. In general, plastic manufacturing procedures are generally consistent depending on the type of recyclable plastics, so to simplify, PET, which is the most commonly recycled plastic, is discussed below. PET pellets are generated through the combination of ethylene glycol and terephthalic acid (Petra 2015). Once pelletized, the PET is heated to a liquid that is molded into a specific shape, such as food and beverage containers. When PET is molded into specific shapes and held at high temperatures, it crystallizes and becomes opaque and less flexible, which is often used for food storage (Petra 2015). The history of PET dates back to the mid-1940's when it was first synthesized by chemists. By the early 1970's, the blow-stretch molding technology was developed to allow for lightweight shatterproof containers. By 1977 the first PET bottle was recycled (Petra 2015). Today, PET is the most commonly recycled plastic and is currently collected via the City's curbside recycling program. However, prior to recycling plastic food and beverage containers, they should be rinsed or wiped clean to remove food residue because recyclable materials in Long Beach are comingled and transported together. Because all recyclables are transported together, there is a risk for contamination, especially with food residue being transferred to potentially clean, recyclable materials, such as paper. Although it is recognized that there are various types of recyclable plastics, for the purposes of this analysis, any form of recyclable plastic container is referred to simply as "recyclable-plastic."

Single-Use Biodegradable/Compostable Food and Beverage Containers

Multiple types of single-use biodegradable food and beverage containers, which are distinguished by their material components, are currently available. Biodegradable food and beverage containers can be made from a variety of different organic materials including corn, sugarcane (Bagasse), potatoes, soybeans, grass, cellulose, and paper (Canon 2012). In general, plastics derived from plants and food by-products such as corn, soybeans, and sugar are considered bioplastic, the most common of which is polylactic acid (PLA), which is made from fermented plant starch (generally corn). PLA may break down within three months in an industrial composting facility, but will take much longer (ranging from 100 to 1,000 years) in a landfill and is not designed to degrade in a

marine environment (Royte 2006). In general, PLA is similar to conventional plastics that are made from fossil fuels and can be formed into pellets which are melted and molded into various products.

Paper food and beverage containers are generally constructed from paperboard, a packaging type that comes in several different grades and is made from wood pulp. Specifically, bleached paperboard or solid bleached sulfate (SBS), which may be used for food packaging, is a paperboard grade that is produced from a combination of at least 80 percent virgin bleached wood pulp (American Forest and Paper Association (AFPA) 2014). The SBS is generally coated with a thin layer of kaolin clay to improve its printing surface and food and beverage containers are also often coated with polyethylene (PE) resin to increase strength for packaging wet food. Coated unbleached kraft (CUK) paperboard, which may also be used for food packaging, is generally produced from a mixture containing at least 80 percent virgin unbleached, natural wood pulp (AFPA 2014). Similar to SBS, the paperboard is generally coated with a thin layer of kaolin clay to improve its printing surface and food and beverage containers are also often coated with PE resin to increase strength for packaging wet food. Paper containers are often used for hot or cold drinks, soup bowls, and plates, as well as clamshell boxes and trays. Paper containers that are coated with compostable plastics can be composted in industrial facilities (Hoover 2014).

Biodegradable/compostable food and beverage containers are generally a similar size and weight as non-biodegradable food and beverage containers, but are more expensive and only biodegrade if they are sent to commercial composting facilities. Biodegradable/compostable food and beverage containers range in price from approximately $42.00 for 250 square sandwich-sized clamshell bagasse containers, to $82.00 for 250 square sandwich-sized clamshell PLA food and beverage containers (Green Home 2017).

Reusable Food and Beverage Containers

Reusable food and beverage containers can be made from plastic, metal (such as stainless steel), or glass. These containers differ from the single-use containers in their longevity as they are meant to withstand many uses. Although still developing and expanding, there are options for reusable food containers that are available today, such as GO Box, which is a subscription-based program that launched in downtown Portland, Oregon that allows members to pick up a meal in a reusable, returnable container and once their meal is complete, they return it to a specialized drop box to be commercially washed and reused by the next patron. This program has proved successful in Portland so far with over 80 food vendors, 3,000 subscribers, and 100,000 containers saved since the program launched (GO Box 2017). The primary hurdle associated with reusable food and beverage containers is compliance with the Health Department rules which prohibit food vendors from serving food in a customer's personal containers or containers that have otherwise not been sanitized professionally. The main exception to this is establishments that primarily serve beverages, such as coffee shops where customers may be able to reuse a container from home and may even get a discount. Likewise, individuals may bring their own take-away container from home for leftovers at a restaurant.

The production stages in reusable food and beverage container lifecycles depend on the materials used. Once used, these containers are reused until worn out through washing or regular use, and then typically disposed either in the landfill or recycling facility (if recyclable). Although detailed here, because reusable food and beverage containers are not currently a viable, wide-spread option in Long Beach, they are not discussed further throughout this study.

Number of Polystyrene Food and Beverage Containers in Long Beach

In order to estimate the current number of polystyrene food and beverage containers used per year in Long Beach, this analysis utilized California Department of Finance population data for the City of Long Beach and per capita production rates of polystyrene and the average weight of the different types of polystyrene containers. This analysis applies a rate of 4.4 pounds of polystyrene per person per year, which is halfway between the national average (which ranges from 1.8 to 7 pounds per person per year).[3][4] The customer base of retailers subject to the proposed ordinance that are located within Long Beach may include residents of communities located within or outside of Long Beach (i.e., visitors who live outside Long Beach but travel to shop or eat within Long Beach). Likewise, Long Beach residents may shop and dine outside of the city limits. Thus, for this analysis, the City of Long Beach's current population is used to estimate the amount of polystyrene (in pounds per year) used in Long Beach. This estimate is considered reasonable and conservative for the purposes of this analysis.

In Long Beach it is estimated that approximately 2,068,616 pounds (or 1,034 tons) of polystyrene is used per year. This equates to approximately 66,194,252 food and beverage containers (clamshells, plates, cups, utensils, etc.) that are currently used annually in Long Beach.

5. Proposed Ordinance Characteristics

In response to concerns regarding environmental impacts of single-use food and beverage containers made of EPS foam, rigid polystyrene #6, and non-recyclable and non-compostable material for prepared food distribution, the City of Long Beach has prepared a Polystyrene Food Packaging Ordinance. The proposed ordinance would apply to all "food providers," which is defined as any person or place (other than a "small food provider")[5] that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption. These entities would be required to certify compliance with the proposed ordinance on the annual business license renewal application. Food providers include, but are not limited to: grocery stores, supermarkets, restaurants, drive-thru restaurants, cafes, coffee shops, or the like. The term "food provider" also includes any organization, group, or individual that regularly provides prepared food to its members or the general public as a part of its activities or services.

The ordinance would be phased in over 18 months and would apply to city facilities, city contractors, city-sponsored events, and city-permitted events first. Specifically, on or after three months following the adoption of the ordinance, no City-sponsored or City-permitted events shall distribute or utilize disposable food service ware containing polystyrene. Likewise, on or after nine months following the operative date of the ordinance codified by the City Council, no food provider shall distribute or utilize disposable food service ware containing polystyrene. The ordinance applies

3 The Resin Review, 2012 Edition

[4] For the purpose of this analysis, it is assumed that all polystyrene is EPS foam because there are no other reasonable polystyrene (rigid or film) metrics for use. Additionally, this is a conservative approach because the basis of the analysis is in part weight-based and EPS foam is generally lighter than rigid polystyrene. Although EPS foam is not necessarily lighter than EPS film, EPS film is likely not widely used by food service providers in the City. Instead, it would be more likely that polystyrene film would be found on pre-packaged food items.

[5] A "small food provider" is defined as a person or place that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption, seating one hundred (100) or fewer persons. Per the proposed ordinance, no "small food provider" shall distribute or utilize disposable food service ware containing polystyrene on or after 18 months following the operative data of the ordinance.

to cups, plates, bowls, clamshells, and other products primarily for food service use, as well as polystyrene coolers and ice chests. Similarly, the ordinance prohibits sale or distribution of polystyrene beads for crafts or as filler for bean bags. The ordinance would also require that straws, lids, and utensils be provided only upon request.

The second phase of the ordinance would require "small food providers," defined as a person or place that provides or sells prepared food in the City to the general public to be consumed on the premises or for take-away consumption, seating 100 or fewer persons, to comply with the requirements of the ordinance within 18 months of ordinance adoption. Likewise, no person shall sell or distribute polystyrene beads for crafts or as filler for bean bags, or polystyrene coolers/ice chests after within 18 months of ordinance adoption.

The purpose of the proposed ordinance is to regulate the use of polystyrene food packaging in order to reduce and prevent the presence of this type of litter in the environment, protect public health, and promote environmentally sustainable practices in the City. The proposed ordinance would result in a reduction of polystyrene food and beverage containers; however, the ordinance is not anticipated to result in a decline in overall consumption of disposable food and beverage containers. Replacement containers for the banned food ware are anticipated to be a mix of plastic (including both recyclable and compostable) and fiber products (such as paper), which do not break apart as easily as EPS foam material.

6. Anticipated Changes in Food and Beverage Container Use as a Result of the Proposed Ordinance

The analysis in this CE Report assumes that as a result of the proposed ordinance, rigid polystyrene #6, and non-recyclable and non-compostable material for prepared food distribution, 100 percent of the volume of the banned food ware currently used in Long Beach would be replaced by a mix of recyclable, compostable, and biodegradable food and beverage containers. For this analysis, it is conservatively assumed that all of the existing polystyrene food and beverage containers (approximately 66,194,252) would be replaced by a similarly sized container or product that is composed of either ordinance-approved plastic (recyclable) or paper products (compostable). As shown in Table 1, the net change in the materials used for food and beverage containers would result in a net increase in total weight of materials used and disposed, but the overall number of containers would remain the same. For this analysis, paper was assumed to replace 70 percent of the existing polystyrene food ware products, and the rest (approximately 30 percent) would be replaced with ordinance approved plastic food and beverage containers.

Table 1 Net Change in Food and Beverage Containers Used

	Existing Conditions	Proposed Ordinance	
Material Type	Polystyrene	Paper	Plastic
Substitute Proportion	0	70%	30%
Quantity	66,194,252	46,335,976	19,858,275
Weight in lbs	2,068,616	1,241,804	918,465
Total Weight	2,068,616	2,160,269	
Net Change	Increase of 91,653 pounds per year		

Modeling calculations contained in Appendix B.

As mentioned under *Number of Polystyrene Food and Beverage Containers in Long Beach*, for the purpose of this analysis, it is assumed that all polystyrene is EPS foam because there are no reasonable other polystyrene (rigid or film) metrics for use. Additionally, this is a conservative approach because the basis of the analysis is in part weight-based and EPS foam is generally lighter than rigid polystyrene. Although EPS foam is not necessarily lighter than EPS film, EPS film is likely not widely used by food service providers in the City. Instead, it would be more likely that polystyrene film would be found on pre-packaged food items. The ordinance is not anticipated to result in a decline in overall consumption of disposable food and beverage containers, but instead is anticipated to result in the use of alternatives or substitutes.

7. Project Objectives

The City of Long Beach's objectives for the proposed ordinance includes:

- Reducing the environmental impacts related to single-use polystyrene food and beverage containers, such as impacts to biological resources (including aquatic/marine environments) and water quality
- Reducing human impacts related to single-use polystyrene food and beverage containers, including aesthetic (litter) and public health
- Deterring the use of single-use polystyrene food and beverage containers by consumers
- Increasing the City's waste diversion rate
- Reducing the amount of polystyrene litter on the beach and in the marine environment that may impact biological resources, human health, and aesthetics

8. Impact Analysis

The following discussion provides an analysis of the project's potential effects with respect to air quality, GHG emissions, hydrology and water quality, or utilities. The proposed ordinance would not result in a significant effect to any of the other issue areas contained in the CEQA Guidelines Appendix G Checklist. Similarly, as detailed below, approval of the ordinance would not result in any significant effects relating to air quality, GHG emissions, hydrology and water quality, or utilities.

A. *Air Quality*

The proposed ordinance would not involve any physical development that would directly increase air quality emissions. Nevertheless, this analysis qualitatively considers impacts to emissions related to manufacturing and transportation (truck trips to deliver food packaging to Long Beach) of polystyrene as well as the primary alternatives (recyclable plastic and compostable/biodegradable plastics and fibers). No known polystyrene or paper mills/manufacturers are located in Long Beach; however, there are plastic manufacturers located in the City. Additionally, there are paper mills/manufacturers and plastic manufacturers elsewhere in Los Angeles County. Likewise, each of these types of food and beverage containers are assuredly manufactured and/or used elsewhere in California. Therefore, impacts to air quality resulting from the manufacturing process and transportation are not limited to the local air basin (the South Coast Air Basin). For this analysis the local air basin and localized conditions are discussed and used as an example of the types of effects that may occur as a result of the manufacturing and transportation/delivery of food and beverage containers to Long Beach.

The analysis focuses on air quality impacts associated with manufacturing facilities and the impacts associated with truck trips that deliver food containers in Long Beach. Because Long Beach is located in the South Coast Air Basin and falls under the jurisdiction of the South Coast Air Quality Management District (SCAQMD) the following SCAQMD recommended significance thresholds have been applied to the project operations:

- 55 pounds per day of ROG
- 55 pounds per day of NO_X
- 550 pounds per day of CO
- 150 pounds per day of PM_{10}
- 55 pounds per day of $PM_{2.5}$

Construction-related air quality impacts are also considered significant if emissions associated with construction activity would exceed adopted SCAQMD thresholds; however, these thresholds do not apply in the context of the ordinance because the ordinance does not involve any construction.

Manufacturing Emissions

The manufacturing process to make food and beverage containers requires fuel and energy consumption, which generates air pollutant emissions. These may include particulate matter (PM_{10} and $PM_{2.5}$), nitrogen oxides (NO_X), hydrocarbons (HC), sulfur oxides (SO_X), carbon monoxide (CO), and odorous sulfur. The level of emissions varies depending on the type and quantity of containers produced. While there is no specific data for emissions per container type, World Centric Eco-profiles (2013) provides energy use associated with the manufacturing process for each container based on data from PlasticsEurope, Environmental Paper Network, and NatureWorks. Manufacturing of polystyrene containers requires more energy per pound than manufacturing of paper or plastic containers, as shown in Table 2. Thus, despite the increased weight of food and beverage containers as a result of the proposed ordinance, as shown in Table 2, the proposed ordinance would reduce energy use by approximately 8,298 MWh (a reduction of approximately 36 percent) compared to existing conditions. Thus, there would not be a substantial increase, and potentially a beneficial decrease in criteria pollutant emissions associated with manufacturing of containers using polystyrene substitutes.

Table 2 Manufacturing Energy under Existing and Proposed Conditions

	Existing Conditions	Proposed Ordinance	
Material Type	Polystyrene	Paper	Plastic
Quantity	66,194,252	46,335,976	19,858,275
Weight (lbs)	2,068,616	1,241,804	918,465
Rate of Energy Use kWh/lb	11.28	5.2	9.34
Manufacturing Energy, MWh	23,334	6,457	8,578
Total (MWh)	23,334	15,035	
Net Change (MWh)	Decrease of 8,299		

Modeling rates per container type, total container weight and calculations are contained in Appendix B.

Source: WorldCentric. "Energy Savings", 2013

Further, manufacturing facilities are subject to air quality regulations that are intended to reduce emissions sufficiently to avoid violations of air quality standards, including the Federal Clean Air Act and would be required to obtain permits such as the EPA Title V Permit and/or a local air quality management district permit. A local air permit from the SCAQMD is a written authorization to build, install, alter, replace, or operate equipment that emits or controls the emission of air contaminants such as NO_X, CO, PM_{10}, $PM_{2.5}$, or SO_X. Permits ensure that emission controls meet the need for the local region to make steady progress toward achieving and maintaining federal and State air quality standards. Permits also ensure proper operation of control devices, establish recordkeeping and reporting mechanisms, limit toxic emissions, and control dust or odors. In addition, the SCAQMD routinely inspects operating facilities to verify that equipment operates in compliance with SCAQMD rules and regulations.

Thus, while the proposed ordinance may alter emissions associated with manufacturing facilities of food and beverage containers, the facilities would be subject to federal, State, regional (SCAQMD), and local air regulations, and as such any related change in emissions from the substitute products manufactured in the State and locally in Long Beach would be emissions that have been permitted in compliance with these regulations and would potentially be up to 36 percent lower than existing emissions due to the reduction of energy use (as shown in Table 2).

Transportation Emissions

Delivery trucks that transport food and beverage containers from manufacturers or distributors to local retailers in Long Beach also contribute air emissions locally and regionally. Diesel engines emit a complex mix of air pollutants, composed of gaseous and solid material (ARB 2011). The visible emissions in diesel exhaust are known as particulate matter, or PM, which are small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. Diesel PM emissions are estimated to be responsible for about 70 percent of the total ambient air toxic risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures (hot-spots).

Assuming that food and beverage containers are transported via a standard 53-foot diesel delivery truck, which has a maximum load capacity of approximately 48,000 pounds, approximately 43 annual truck trips (an average of about 0.12 trips per day) are currently needed to deliver the approximately 2,068,616 pounds (or 1,034 tons) of polystyrene used per year in Long Beach. With the proposed ordinance, approximately 45 truck trips would be needed per year to deliver 918,465 pounds of recyclable plastic and 1,241,804 pounds of paper products per year. This is a net increase of two truck trips per year compared to existing conditions. Using standard emissions rates, Table 3 shows mobile emissions resulting from the net increase of truck trips generated by the proposed ordinance. As indicated, emissions associated with the proposed ordinance would be substantially less than the SCAQMD thresholds. Because long-term emissions would not exceed SCAQMD thresholds, impacts would be less than significant.

Table 3 Transportation Emissions (Truck Trips) for Proposed Ordinance

	Emissions (lbs/day)				
Emission Source	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Mobile Emissions (Truck Traffic)	<0.01	0.02	<0.01	<0.01	<0.01
SCAQMD Thresholds	55	55	550	150	55
Threshold Exceeded?	No	No	No	No	No

1 EMFAC

2 California Climate Registry, General Reporting Protocol, Version 2.1 - http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf

3 EPA AP 42 Section 13.2.1 Paved Roads - Updated November 2006: https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

See Appendix B for calculations

Conclusion

The proposed ordinance would reduce overall energy use associated with container manufacture and would not generate a substantial increase in emissions associated with container transport. Thus, it would not generate significant air quality impacts.

B. Greenhouse Gas Emissions

Climate Change and Greenhouse Gases

Gases that trap heat in the atmosphere are often called greenhouse gases (GHG), analogous to the way in which a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases, and ozone (O_3). GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6) (Cal EPA 2006).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (Cal EPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or

qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 MT carbon dioxide equivalents (CO_2e) per year to be significant. However, the SCAQMD's threshold applies to only stationary sources and is intended to apply only when the SCAQMD is the lead agency.

In the latest guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of projects. The draft tiered approach is outlined in meeting minutes dated September 28, 2010:

- **Tier 1** – If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- **Tier 2** – Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.
- **Tier 3** – Establishes a screening significance threshold level to determine significance. There Working Group has provided a recommendation of 3,000 metric tons (MT) of CO_2e per year for all non-industrial projects.

The City of Long Beach has not adopted a GHG reduction plan; therefore, the proposed project would be evaluated based on the SCAQMD's recommended Tier 3 threshold of 3,000 MT CO_2e per year for non-industrial projects. This threshold is based on attaining the 2020 goal for AB 32. The proposed project is anticipated to be operational prior to 2020 and the Association of Environmental Professionals' Climate Change Committee published a white paper recommending that CEQA analysis for most land use development projects may continue to rely on current adopted thresholds for the immediate future in light of the change in focus on the 2030 reduction target for SB 32 (AEP 2016). Therefore, the SMAQMD's 3,000 MT per year CO_2e threshold, which is consistent with AB 32 2020 targets, is used for the proposed ordinance.

Manufacturing Emissions

The manufacturing process to make food and beverage containers requires fuel and energy consumption, which generates GHG emissions. As discussed in earlier sections, the ordinance intends to phase out certain types of food-ware (polystyrene), which would be replaced by substitute products (ordinance approved paper and/or plastic food and beverage containers). This analysis estimated the GHG emissions associated with manufacturing of polystyrene versus polystyrene substitutes based on product weight and associated emissions data for the various food and beverage container types, which is illustrated in Table 4. Emissions are given in metric tons (MT) of CO_2e. The analysis was performed using data from several lifecycle studies involving food and beverage container options which are summarized in a study performed by WorldCentric (2013). As shown in Table 4, assuming a maximum impact scenario, the proposed ordinance would result in a net increase of 143 MT of CO_2e due to the change from polystyrene containers to a mix of paper and recyclable plastic containers, which have slightly higher GHG emissions per unit food ware.

Table 4 Net Change in Manufacturing GHG Emissions due to Proposed Ordinance

	Existing Conditions	Proposed Ordinance	
Material Type	**Polystyrene**	**Paper**	**Plastic**
Quantity	66,194,252	46,335,976	19,858,275
Weight (lbs)	2,068,616	1,241,804	918,465
Emissions/lb (CO_2e)	2.51	3.2	1.67
Manufacturing Emissions (MT of CO_2e)	2,355	1,802	695
Total Manufacturing Emissions (MT of CO_2e)	2,355	2,497	
Net Change in Emissions (MT of CO_2e)	Increase of 143		

Modeling rates per container type, total container weight and calculations are contained in Appendix B
Source: WorldCentric. "Energy Savings" 2013

Transportation Emissions

Delivery trucks that transport food and beverage containers from manufacturers or distributors to the local retailers in Long Beach also contribute GHG emissions. However, as discussed in Section A, *Air Quality*, the proposed ordinance would only result in a net increase of two truck trips per year. Using standard emission rates (EMFAC 2014), two truck trips would result in a net increase of 1.05 MT of CO_2e.

Combined Manufacturing and Transportation Emissions

Summing both the manufacturing GHG emissions (as shown in Table 4) and the net increase of GHG transportation emissions (approximately 1.05 MT of CO_2e), the total net increase of emissions associated with the proposed ordinance would be 144 MT of CO_2e per year. This net increase of GHG emissions (144 MT of CO_2e) would not exceed the SCAQMD threshold of 3,000 MT of CO_2e. Thus, impacts would be less than significant.

Conclusion

The proposed ordinance would not substantially increase GHG emissions and therefore would not result in a significant impact related to climate change.

C. Hydrology and Water Quality

The proposed ordinance would not involve any physical development that would directly affect hydrology or water quality. Nevertheless, this analysis considers impacts to surface water drainage and water quality issues. The specific effects of polystyrene as well as the primary alternatives (recyclable plastic and compostable/biodegradable plastics and fibers) are analyzed qualitatively below with respect to drainage and water quality impacts. No known polystyrene or paper manufacturers are located in Long Beach; however, there are plastic manufacturers in the City. Additionally, there are paper mills and plastic manufacturers elsewhere in Los Angeles County. Each of these types of food and beverage containers are also manufactured and/or used elsewhere in California. Therefore, impacts to hydrology and water quality are not limited to the local watershed. However, for this analysis the local watershed and hydrologic conditions are discussed and used as an example of the types of effects that may occur as a result of the manufacturing and disposal of food and beverage containers.

Surface Water Drainage

The following section details the watershed within the project area (the City of Long Beach), stormwater and urban runoff, and flooding and flood management.

Watersheds

Long Beach is located in the Los Angeles River Watershed, which covers 824 square miles. The headwaters for the Los Angeles River Watershed begins in the Santa Monica, Santa Susana, and San Gabriel Mountains and the main stem of the Los Angeles River is 55 miles long, nearly all of which flows through concreate channels in heavily developed areas prior to emptying into the Pacific Ocean (Midbust et al. 2014). Long Beach is located at the southernmost tip of Los Angeles County, where it sits at the receiving end of all the water and trash that makes it downstream in the Los Angeles River Watershed (Midbust et al. 2014). As such, Long Beach has installed a trash boom near the mouth of the Los Angeles River to capture trash before it reaches the ocean. Due to the nature of the boom, vegetation and soil are also captured (Midbust et al. 2014). Although the trash boom is an effective mechanism, it does not collect all of the trash. Data from beach cleanups in Long Beach near the mouth of the Los Angeles River suggests that a higher amount of trash leaves the boom than is retained, with an annual range of 96-331 tons collected during the beach cleanups, compared to 15-64 tons collected from the boom (Midbust et al. 2014). Therefore, littered trash in the City, as well as from many surrounding communities, can ultimately end up in the Pacific Ocean.

Stormwater and Urban Runoff

Stormwater is rainwater that flows across surfaces without being absorbed into soil, whereas urban runoff is stormwater that combines with irrigation runoff, and water from other sources in an urban setting. Hardscape areas prevent water from being absorbed into the ground and causes stormwater to flow more quickly and in larger qualities into the storm drain system. Because much of Long Beach is urbanized, the water is discharged into local storm drains, which flow into the Pacific Ocean.

Flooding and Flood Management

Long Beach's existing storm drain system and flood control facilities generally have sufficient capacity to provide developed areas with adequate protection from flooding. According to the Long Beach General Plan – Public Safety Element, three flood control dams lie upstream from Long Beach: the Sepulveda Basin, Hansen Basin, and the Whittier Narrows Basin. However, the Public Safety Element states that if either of these two basins failed, flood waters are expected to dissipate due to their distance from the City, more than 30 miles, and the intervening low and flat ground.

Groundwater

There are two underground water reservoirs (Central and West Basins), which extend over 420 square miles that lies between the southeastern section of Los Angeles County (LBWD 2017a). The Long Beach Water District (LBWD) has the right to pump over 30,000 acre-feet per year of groundwater from the Central Basin, which has the San Gabriel Mountains via the San Gabriel River as its primary source.

Water Quality

Water quality can be greatly affected by pollution carried in contaminated surface runoff. In general, pollutants from unidentified sources are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Surface runoff from roads in Long Beach is collected by storm drains and discharged into creeks and the Los Angeles River where it is ultimately conveyed to the Pacific Ocean. Runoff may contain contaminants such as oil, grease, and other pollutants from vehicles; plant and animal debris (e.g. leaves, twigs, dust, and animal feces); pesticides; litter; and heavy metals. These pollutants have been found to adversely affect the aquatic habitats in which they drain. Litter may also be picked up and transported via runoff. There are a variety of impaired water bodies that currently run through the City of Long Beach and out to Long Beach Harbor and San Pedro Bay. Specifically, Coyote Creek, San Gabriel River, Los Angeles River, and Dominguez Channel are all impaired (Los Angeles, County of 2006).

Litter and Waterways

Litter has the potential to end up on streets, in stormwater systems, and in waterways (Midbust et al. 2014). In addition to illegal disposal of trash, which is also known as litter, improper disposal of waste can be attributed to a lack of infrastructure to capture debris such as trash cans without lids, overfilled trashcans, public parks, recreational areas, and beaches (Midbust et al. 2014). One of the primary sources of marine debris is urban runoff (Midbust et al. 2014).

Food and Beverage Containers as Litter

The following section briefly outlines the effects of various types of materials on water quality.

Polystyrene Food and Beverage Containers

Polystyrene food and beverage containers that enter the storm drain system as litter may affect stormwater flow by clogging drains and redirecting flow. After a single use, the containers are disposed of in a landfill or recycling facility, or alternatively discarded as litter. Although some recycling facilities handle polystyrene food and beverage containers, most reject the material because it is contaminated after use or the recycled material isn't profitable enough to complete the process. Of the 377,580 tons of polystyrene produced in California in 2004, less than one percent was recycled (Clean Water Action California 2009). The majority of polystyrene food and beverage containers end up in the landfill or as litter (Equinox Project 2017). Even those collected by recycling and solid waste trucks and handled at transfer stations and landfills may break down and blow away as litter due to their light weight. Single-use polystyrene containers that become litter can enter storm drains and may clog catch basins or be transported to the Pacific Ocean. This is a particular issue because it is common for polystyrene to break down after being littered and small pieces could pass through the 5 millimeter mesh screen used to trap and hold debris (Midbust et al. 2014). A study completed in Los Angeles County found that polystyrene totaled approximately 6-23 percent of plastic debris found in the Los Angeles and San Gabriel River Watersheds (Midbust et al. 2014). This is likely an underestimation because the study did not include foamed food containers, which may have been comprised of polystyrene unless the material was specifically labeled as such (Midbust et al. 2014).

Plastic Food and Beverage Containers

Similar to polystyrene, recyclable or compostable plastic food and beverage containers have the potential to enter the storm drains as litter. Although potentially similar in weight to polystyrene

containers, plastic containers are less likely to break apart and are therefore more apt to be removed during street sweeping or maintenance activities.

PAPER FOOD AND BEVERAGE CONTAINERS

Paper food and beverage containers also have the potential to enter the storm drains as litter. However, because of the potential weight and recyclability/compostability of paper, these food and beverage containers are less likely to become litter compared to single-use polystyrene containers. In addition, because recyclable paper containers are not as resistant to biodegradation, there is less potential to clog catch basins compared to polystyrene containers. Thus, although paper food and beverage container litter may enter storm drains and temporarily affect hydrologic flow of surface water runoff, the potential for paper containers to enter storm drains and cause long-term hydrologic effects is less than with polystyrene food and beverage containers.

Litter Collection and Cleanup

The City of Long Beach conducts activities to collect and cleanup litter including street sweeping, collecting trash from public trash containers, and organizing, publicizing, and facilitating local cleanups of waterways. These events are held throughout the year (e.g. streetsweeping and routing maintenance of parks/public trash collection) as well as on a single-day basis (e.g. clean up days and illegal dumping response). Across the State, municipalities currently spend approximately $428 million annually related to waterway and beach cleanups, street sweeping, stormwater capture devices, storm drain cleaning and maintenance, manual litter cleanup, and public anti-littering campaigns (Midbust et al. 2014). Additionally, Caltrans estimates that it spends $52 million annually to clean up litter from roads and highways (Midbust et al. 2014). Of that, the County of Los Angeles spends $18 million on clean up annually, as mentioned in *Existing Food and Beverage Container Use Characteristics*, with an additional $4 million spent annually on beach cleanup efforts. It is anticipated that 4,000 tons of waste is collected annually from 31 miles of beaches in Los Angeles County. Additional private or community organizations also conduct cleanups of roadways, lots, or waterways including the SurfRider Foundation and Save Our Beach.

Local Hydrology and Water Quality Impacts

The following discusses how the proposed project could affect water quality from the perspective of trash in local waterways.

Potential Impacts of Polystyrene Food Packaging Ordinance on Local Water Quality

A study completed in the City of San Francisco measured EPS foam in litter after adoption of the polystyrene ban ordinance. Essentially, the study included a street litter audit, where 132 sites were surveyed between April 7-18, 2008. Litter was classified as "large" (over four square inches) or "small" (less than four square inches). To understand the change in litter, a baseline audit was also completed prior to the adoption of the ordinance. In the first sample year after the ordinance was adopted, the relative composition of litter appeared to shift from EPS foam to the substitute container types. According to the study's findings, the EPS foam ordinance changed the composition of urban litter, but not the amount (HDR 2008). As mentioned in *Existing Food and Beverage Container Use Characteristics*, EPS food containers easily break down and blow around due to their lightweight structure. Although plastic and paper substitutes may be similar in weight, they are less likely to break down and crumble and are therefore less likely to become airborne. Additionally, this debris might be removed by street sweeping, maintenance activities, or screens and trash tracks,

such as the Long Beach Trash Boom. As such, while the overall volume of litter from food and beverage containers may be similar, the replacement materials are less likely to reach waterways.

If paper materials do end up reaching waterways, they are likely to decompose over a period of weeks or months and likely would not accumulate over time (Stevenson 2011). Although paper and other natural fibers can disaggregate in water, they could still reduce the overall water quality. However, paper and other natural fibers are made from organic materials, such as plant cellulose, that can biodegrade overtime. Plastic coatings in fiber cups and containers would take additional time to breakdown. The breakdown of plastic substitutes to polystyrene containers in water would be similar to that of polystyrene, although EPS foam may break into pieces sooner than other hard, non-foam plastic resin products.

Replacing polystyrene food and beverage containers with alternative products (which are also currently found in litter) would reduce the amount of polystyrene food and beverage containers in litter and thus would also reduce the amount of polystyrene litter that reaches the beaches and Pacific Ocean. The proposed ordinance would not result in a substantial change in the number, volume, or weight of litter items or trash in waterways and would not interfere with implementation of regional plans or programs, such as the Los Angeles Regional Board's Basin Plan or National Pollutant Discharge Elimination System (NPDES) municipal stormwater permits designed to protect beneficial uses and improve water quality. Thus, impacts would not be significant.

Potential Impacts of Polystyrene Manufacturing on Local Water Quality

The proposed ordinance would result in a reduction in polystyrene food and beverage containers and is anticipated to result in a proportional increase in the manufacture and use of plastic and paper substitute materials. There are currently fiber and plastic (recyclable and compostable) containers manufactured in the State, as well as nationally and internationally. Because the exact breakdown of materials that would replace polystyrene, as well as the location of manufacturing is currently unknown, this analysis generally discusses the available substitute types and summarizes what is known, including the potential water quality impacts. It is likely, however, that the majority of the manufacturing facilities would be located outside of Long Beach because there are currently no bioplastics or fiber processing facilities in Long Beach. There is, however, a petrochemical plastics manufacturing facility in the City. As mentioned under the *Hydrology and Water Quality* section introduction, there are also manufacturers of alternative products elsewhere in Los Angeles County.

Production of replacement materials, including plastics (recyclable or compostable) and paper made from virgin materials, can result in increased eutrophication from pollutants released during the manufacturing process and during feedstock production. Eutrophication similar to that which may occur during the paper manufacturing stage may also happen during the manufacturing process of compostable plastics because the resin is produced from plant materials. Eutrophication can degrade water quality and result in reduced oxygen levels which may harm wildlife. Paper manufactured using recycled content generally results in reduced water quality impacts, compared to virgin materials. However, the use of recycled material may be limited in containers used for food due to potential concerns regarding contamination.

In general, chemicals used in paper manufacturing can include chlorine, sodium hydroxide, chloroform, acids, solvents (tetrachloroethylene, methylene chloride), and sodium sulfide (EPA 1990). There are also a variety of chemical compounds that have toxic properties associated with the manufacture of petrochemicals and plastic products which results in a highly regulated industry. There are currently regulation limits for the industrial discharge of paper waste and manufacturing chemicals in the United States as well as a number of other countries. These include the regulations

under the NPDES Industrial Discharge Program. Any manufacturing facility, including plastic and paper manufacturers, would be required to comply with the applicable regulations. Transitioning from polystyrene to plastic- or paper-based food and beverage containers would not lead to a significant increase in discharge to waters as the volume of materials would be the same or slightly reduced. Likewise, compliance with the regulations would further reduce impacts. Therefore, based on the relatively minor shifts in manufacturing anticipated and the existing laws and regulations governing manufacturing, the incremental increases in throughput of replacement paper or plastic food and beverage containers compared to existing use of polystyrene food and beverage containers would not result in a significant impact.

Conclusion

The proposed polystyrene food and beverage container ordinance would not violate water quality standards, waste discharge requirements, or otherwise substantially degrade water quality. Additionally, the proposed polystyrene food and beverage container ordinance would not expose people or structures to flooding or inundation hazards or alter existing drainage patterns.

D. Utilities and Service Systems

This section evaluates the potential impacts associated with utilities and service systems associated with the proposed ordinance.

Water Supply

The proposed ordinance would apply to the entire City of Long Beach, with specific requirements for food providers within the first nine months and "small food providers" within the following nine months after ordinance adoption (see Draft Ordinance in Appendix A). The LBWD provides water to the majority of Long Beach (LBWD 2017b). The major sources of water in Long Beach are those purchased wholesale from the Metropolitan Water District of Southern California (MWD), groundwater pumped and treated by LBWD, and recycled water (LBWD 2017b). Table 5 shows the total projected water supply, demand, and difference for the City in 2020, 2025, 2030, 2035, and 2040.

Table 5 Normal Year Supply and Demand Comparison (AFY)

	2020	2025	2030	2035	2040
Supply Totals	72,824	73,381	73,954	74,539	75,132
Demand Totals	63,643	63,410	63,455	63,609	64,136
Difference	9,181	9,971	10,499	10,930	10,996

AFY = acre-feet per year

Source: LBWD. 2016. 2015 Urban Water Management Plan. Table 7-2

Stormwater

The Long Beach Stormwater/Environmental Compliance Division, a subset of the Public Works Department, is responsible for maintaining the storm drain system and monitoring stormwater quality within the City in coordination with the Los Angeles County Flood Control District (LACFCD) and the County of Los Angeles Public Works Department. Stormwater drainage systems convey runoff and prevent local flooding of streets and urban areas. They move water away from

developed and rural areas to a local water body, such as a creek, river, bay, or ocean. Stormwater sewer systems include stormwater inlets (storm drains) and gutters on streets as well as pipes and outfall. According to the City of Long Beach Environmental Services Bureau, a significant amount of pollution in the local waters and beaches comes from the storm drain system. Specifically, litter and other pollutants from streets, neighborhoods, businesses, parking lots, or construction sites are washed down storm drains by rain, hosing, or illegal dumping (City of Long Beach Environmental Services Bureau).

Wastewater

The LBWD operates and maintains the City's sanitary sewer system (LBWD 2017c). Specifically, the LBWD operates and maintains nearly 765 miles of sanitary sewer lines to deliver over 40 million gallons per day to Los Angeles County Sanitation Districts (LACSD) facilities located on the north and south sides of the City of Long Beach (LBWD 2017c). From there, treated wastewater could be used to irrigate parks, golf courses, cemeteries, and athletic fields; recharge the groundwater basin; or it would be pumped into the Pacific Ocean. Currently, a majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts. The remaining portion of the City's wastewater is delivered to the Long Beach Water Reclamation Plant of the Los Angeles County Sanitation Districts (LBWD 2017c).

Solid Waste

The City's Environmental Services Bureau provides solid waste collection services throughout Long Beach (City of Long Beach Environmental Services Bureau). The majority of the City's solid waste is disposed of at the Southeast Resource Recovery Facility (SERRF). The City and LACSD have a Joint Powers Agreement to operate the SERRF, located at 120 Pier S Avenue in Long Beach. The SERRF is a refuse-to-energy transformation facility that reduces the volume of solid waste by approximately 80 percent while creating electrical energy (LACSD). The SERRF produces 36 megawatts (MW) of electricity for Southern California Edison, which is enough to supply 35,000 homes with electrical power.

The SERRF performs "front-end" and "back-end" recycling by recovering items such as white goods prior to incineration and collecting metals removed from the boilers after incineration (LACSD). Each month, an average of 825 tons of metal are recycled rather than sent to a landfill. The Solid Waste Facility Permit from the County Solid Waste Management Program for the SERRF authorizes the disposal of a maximum of 2,240 tons per day (CalRecycle 2017). Remaining capacity and estimated closure dates are not applicable because the SERRF is a transformation facility that converts solid waste to energy and ash.

In approximately three years, the County of Los Angeles (County) plans to load waste dumped by residential and commercial garbage trucks from the County's 88 cities onto rail cars for transport to the Mesquite Regional Landfill in Imperial County (Los Angeles, County of 2016); the waste-by-rail system would consist of transfer stations and intermodal rail yards. Completed in 2011, owned and operated by LACSD, the Mesquite Regional Landfill is permitted to receive up to 20,000 tons of municipal solid waste per day and has a total capacity of 660 million tons (Los Angeles, County of 2016). The project life of the facility is about 109 years. Through the available Material Recovery Facilities (MRF) run by LACSD, temporary use of landfills in Orange, San Bernardino, and Riverside Counties, and plans for future implementation of the waste-by-rail landfill system, Los Angeles County will be able to meet projected landfill needs.

The California Integrated Waste Management Act of 1989 (AB 939), required each city or county's source reduction and recycling element to include an implementation schedule showing that it will divert 50 percent of solid waste from landfill disposal or transformation on and after January 1, 2000. SB 1016, passed in 2008, now requires the 50 percent diversion requirement to be calculated in a per capita disposal rate equivalent.

Local Utilities and Service System Impacts

The following section outlines the potential impacts related to water supply and wastewater treatment, stormwater drainage, and solid waste.

Water Supply and Wastewater Treatment Impacts

The proposed restrictions on the use of polystyrene food and beverage containers and a shift to other types of single-use food-ware used in Long Beach would not result in substantial additional water use or wastewater generation. Plastic containers that could be recycled would be rinsed by residents before placing in recycling bins; however, fiber (paper/compostable) containers would not need to be rinsed and would simply be disposed of in the landfill waste, or compost stream if available and applicable.

WATER SUPPLY AND WASTEWATER TREATMENT ASSOCIATED WITH MANUFACTURING FOOD AND BEVERAGE CONTAINERS

Studies from the European plastics industry *(PlasticsEurope, Association of Plastics Manufacturers)* show that the production of plastic resins ranges in water use[6] from 3,378 grams of water per kilogram of HDPE to 4,828 grams of water per kilogram of PET (PlasticsEurope 2008a and 2008b). According to the same source, the production of one kilogram of polystyrene resin requires approximately 9,175 – 10,279 grams (20.22-22.6 pounds) of water (PlasticsEurope 2008c). Based on the results of these European life cycle inventories, production of substitute plastic products utilizes approximately 33 – 53 percent less water than production of polystyrene. The table below is a comparison of water use for polystyrene and the replacement food and beverage containers (paper and recyclable plastic) as a result of the proposed ordinance. As shown in Table 6, the proposed ordinance would result in a net decrease of water use by approximately 22.33 million gallons per year. In addition, there would also be a net reduction in wastewater generation.

Table 6 Net Change in Water Use from Proposed Ordinance

	Existing Conditions	Proposed Ordinance	
Material Type	Polystyrene	Paper	Plastic
Quantity	66,194,252	46,335,976	19,858,275
Weight (lbs)	2,068,616	1,241,804	918,465
Rate of Water Use gal/lb	20.54	12.38	5.12
Manufacturing Water use (million gallons)	42.4	15.37	4.7
Total (million gallons)	42.4	20.07	
Net Change (million gallons)	Decrease of 22.33		

Source: WorldCentric. "Energy Savings". 2013

Modeling rates per container type, total container weight and calculations are contained in Appendix B

[6] The water use reported by PlasticsEurope explicitly includes process water and does not include water used for cooling.

The replacement of polystyrene food and beverage containers with alternatives, including recyclable or compostable/biodegradable food and beverage containers, would not substantially affect local water use or supply, wastewater generation, or treatment. Water use for manufacturing replacement materials inside or outside of Long Beach would be drawn from managed water resources and may involve water recycling or alternative mechanisms to minimize water consumption. Likewise, wastewater generation and discharge to treatment facilities would be permitted and regulated to comply with local treatment capacity in other jurisdictions. Furthermore, there would not be a substantial increase in water use or wastewater generation. As such, there would be no impacts to water supply or wastewater treatment.

Stormwater Drainage Systems Impacts

As mentioned in Section C, *Hydrology and Water Quality*, litter can be carried to the storm drain system through a variety of pathways including movement through curbs and gutters, wind, or illegal dumping. Littered trash can form large accumulations in stormwater systems which can impact water quality and flood control. As discussed in *Proposed Ordinance Characteristics*, the proposed ordinance would result in a reduction of polystyrene food and beverage containers; however, the ordinance is not anticipated to result in a decline in overall consumption of disposable food and beverage containers or reduce the overall litter rates. As such, the volume of litter on the streets is not expected to change. Replacement containers are anticipated to be a combination of plastic and fiber products, which, when littered, do not break apart as easily as EPS foam material. As discussed in *Existing Food and Beverage Container Use Characteristics*, there are a variety of characteristics of replacement products that could impact how much of the replacement materials enter the stormwater system and to what degree they may clog the system. Although plastic replacement containers would be lighter than fiber replacement containers, they are less likely to break apart than EPS foam products and it is anticipated that the replacement containers, even if littered, would be less likely to become airborne, either off of a waste hauling truck, out of someone's vehicle, or on the street. Additionally, the alternative containers that are littered may be more likely to be collected during routine maintenance or by screens/trash racks than the small pieces of EPS foam that have broken apart. Therefore, even if the replacement containers are disposed of inappropriately, they are equally or less likely to reach waterways. Replacing polystyrene with alternatives would not increase the volume or weight of littered trash in the stormwater system or interfere with implementation of applicable regional plans or programs.

Solid Waste Impacts

The proposed polystyrene food packaging ordinance would result in a shift in the composition of waste from food and beverage containers. As mentioned under *Existing Food and Beverage Container Use Characteristics*, the primary replacement options that are currently available include containers that are made from plastic (recyclable and compostable/ biodegradable) and paper. Unlike polystyrene, plastic and some paper food and beverage containers would be recycled. Additionally, paper containers that have been soiled can be composted at a commercial composting facility. As such, the replacement of polystyrene with plastic (recyclable and compostable/biodegradable) and paper would result in the reduction in the volume (or the number of food and beverage containers) of landfilled materials and an increase in recycled/composted materials. This would be consistent with the primary goals of AB 939 and AB 341, which aim to reduce the sources of landfill waste and increase diversion via recycling, composting, and source reduction.

Understanding the manner in which the weight of waste would change, not the quantity or number of containers, is essential to evaluating the solid waste impacts of the proposed ordinance because a potential environmental impact would arise if the proposed ordinance would require additional local landfill capacity. The table below indicates the cumulative waste generated (which includes both manufacturing waste and landfilled waste) and the net change associated with implementation of the proposed ordinance. The analysis assumes that all containers used would be landfilled. As shown in Table 7, based on weight, the proposed ordinance would result in an increase in solid waste of approximately 1,388 tons per year or 3.8 tons per day. An increase of 3.8 tons per day would not exceed the daily capacity at the SERFF (a maximum of 2,240 tons per day), nor would it exceed the capacity at the Mesquite Regional Landfill (permitted to receive up to 20,000 tons of municipal solid waste per day and a total capacity of 660 million tons with a life expectancy of 109 years). Further, the proposed ordinance would not increase the overall volume of solid waste compared to existing conditions since it is anticipated that the same number and size of food and beverage containers would result from the proposed ordinance as existing conditions.

Table 7 Waste Generation Quantities – Polystyrene and Substitutes

	Existing Conditions	Proposed Ordinance	
Material Type	**Polystyrene**	**Paper**	**Plastic**
Quantity	66,194,252	46,335,976	19,858,275
Weight (lbs)	2,068,616	1,241,804	918,465
Manufacturing Waste per pound (lb) of final product	0.113	2.33	0.029
Manufacturing Waste (lbs)	233,754	2,893,404	26,635
Waste to landfill after container use (lbs)*	2,068,616	1,241,804	918,465
Total Landfill Waste (tons)	1,151	2,067	472
Total (tons)	1,151	2,539	
Net Change (tons)	Increase of 1,388		

Source: WorldCentric. "Energy Savings", 2013.
Full modeling rates per container type, total container weight and calculations are contained in Appendix B
*Assuming all containers are landfilled

Conclusion

The proposed polystyrene food and beverage container ordinance would not significantly alter water use, wastewater generation, or solid waste disposal. Therefore, the proposed polystyrene food packaging ordinance would not result in significant impacts related to utilities and service systems.

9. Summary and Findings

Based on this analysis, the proposed ordinance that would ban the use of polystyrene food and beverage containers meets all criteria for a Class 7 Categorical Exemption pursuant to Section 15307 of the State CEQA Guidelines. Further, the proposed ordinance would not result in an activity that would have a significant effect on the environment due to unusual circumstances (in accordance with Section 15300.2(c) of the CEQA Guidelines). In addition, none of the other exceptions according to Section 15300.2 would apply to the proposed project.

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Appendix A

Draft Long Beach Polystyrene Ordinance

ORDINANCE NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LONG BEACH AMENDING THE LONG BEACH MUNICIPAL CODE BY ADDING CHAPTER 8.63 PROHIBITING THE USE OF SINGLE-USE FOOD AND BEVERAGE CONTAINERS MADE OF EXPANDED POLYSTYRENE (EPS) FOAM, RIGID POLYSTYRENE #6, AND NON-RECYCLABLE AND NON-COMPOSTABLE MATERIAL FOR PREPARED FOOD DISTRIBUTION

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The City Council of the City of Long Beach ordains as follows:

Section 1. Chapter 8.63 is added to the Long Beach Municipal Code to read as follows:

Chapter 8.63

POLYSTYRENE FOOD PACKAGING

8.63.010 Purpose.

The purpose of this Chapter is to regulate the use of polystyrene food packaging in order to reduce and prevent the presence of this type of litter in the environment, protect public health and promote environmentally sustainable practices in the City.

8.63.020 Definitions.

A. "Applicant" means any individual, firm, limited liability company, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever who applies for a City of Long Beach special events

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permit or an exemption to the requirements of this Chapter.

B. "City facility" means any building, structure, property, park or open space owned, managed or leased by the City, its agents, agencies, or departments. This includes, but is not limited to, the Queen Mary, the Convention Center, the Aquarium, and the Long Beach Airport.

C. "City contractor" means any person who enters into an agreement with the City to furnish products or services to or for the City.

D. "City-permitted event" means any event, activity or meeting occurring under the auspices of a City-issued permit.

E. "City-sponsored event" means any event, activity or meeting organized or sponsored, in whole or in part, by the City or any department of the City.

F. "Compostable" means all the material in the product or package will break down, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner. Compostable material must be made of paper, certified compostable plastics that meet ASTM D6400 or ASTM D6868 for compostability or cellulose-based packaging capable of being decomposed through composting or anaerobic digestion.

G. "Department" means the department of Public Works.

H. "Director" means the Director of the department of Public Works, or his/her designee, who is hereby designated to issue a compliance order or an administrative citation to enforce this Chapter pursuant to Chapters 1.25 or 1.26, respectively, of the Long Beach Municipal Code or to grant an exemption to compliance with this Chapter pursuant to Section 8.63.050.

I. "Disposable food service ware" or "disposables" means single-use, disposable products used for serving or transporting prepared

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food, including but not limited to plates, bowls, trays, wrappers or wrapping, platters, cartons, clamshells, condiment containers, cups or drink ware or any other container in or on which prepared foods are placed or packaged for consumption. This does not include straws, cup-lids, or Utensils, nor does it include packaging for unprepared foods.

J. "Food Provider" means any person or place, other than a "Small Food Provider," that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption. "Food Provider" includes but is not limited to: (1) a grocery store, supermarket, restaurant, drive-thru, cafe, coffee shop, snack shop, public food market, farmers market, convenience store, or similar fixed place where prepared food is available for sale on the premises or for take-away consumption, and (2) any mobile store, food vendor, caterer, food truck, vending machine or similar mobile outlet. "Food Provider" also includes any Franchise restaurant, drive-thru, café, coffee-shop or the like. "Food Provider" also includes any organization, group or individual that regularly provides prepared food to its members or the general public as a part of its activities or services.

K. "Franchise" means a food facility in the City that operates under common ownership or control with at least 15 other food facilities with the same name that offer for sale substantially the same menu items, or operates as a franchised outlet of a parent company with at least 15 other franchised outlets with the same name in the state that offer for sale substantially the same menu items.

L. "Small Food Provider" means a person or place that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption, seating one hundred (100) or fewer persons.

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M. "Person" means any person, business, corporation, or event organizer or promoter; public, nonprofit or private entity, agency or institution; or partnership, association or other organization or group, however organized.

N. "Polystyrene" means a thermoplastic petrochemical material utilizing the styrene monomer, including but not limited to polystyrene foam or expanded polystyrene, processed by any number of techniques, including but not limited to fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, or extrusion-blow molding (extruded foam polystyrene), and clear or solid polystyrene (oriented polystyrene). The recycle code for polystyrene is "6" or "PS," either alone or in combination with other letters. This definition applies to all polystyrene food service ware, regardless of whether it exhibits a recycle code.

O. "Polystyrene Beads" means expanded polystyrene foam beads used as filler for toys and beanbags and in crafts.

P. "Polystyrene Cooler" means any cooler or ice chest made of polystyrene foam, where such foam is not fully encased in a durable material.

Q. "Polystyrene food service ware" means disposable food service ware that contains or utilizes polystyrene.

R. "Prepared food" means any food or beverage that is: (1) ready to consume without any further food preparation, alteration or repackaging; and (2) prepared, provided, sold or served by a food provider using any cooking, packaging or food preparation technique. Prepared food may be eaten either on or off the food provider's premises. Prepared food does not include: (1) any raw uncooked meat, poultry, fish or eggs, unless provided for consumption without further food preparation; and (2) fresh produce provided for consumption without food preparation or repackaging,

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including fruits, vegetables, and herbs, sold by grocery stores, supermarkets, food markets, farmers markets and other food vendors.

S. "Recyclable" means material that can be sorted, cleansed and reconstituted using the City's available Residential Recycling Program excluding Plastic containers labeled #6 and any Polystyrene.

T. "Recycle code" means a resin identification code placed on plastics to identify the material composition for separation of different types of plastics for recycling.

U. "Special events" means events that are open to the general public and take place within the public right-of-way or are located within a park and/or are coordinated through the City of Long Beach's special events permit process.

V. "Utensil" means a knife, fork, spoon, spork, chopstick, or the like, used for eating food.

8.63.030 Prohibition against distribution or sale of polystyrene food service ware.

A. No Food Provider shall distribute or sell any polystyrene food service ware in conjunction with the sale of prepared food or beverages at any location within the City of Long Beach.

B. Food Providers that distribute prepared food or beverages in disposable food service ware shall: (1) distribute only disposables that are either Recyclable or Compostable, and if plastic, exhibit a recycle code other than No. 6 or PS; and/or (2) maintain documentation about the composition of any disposable food service ware that does not exhibit a recycle code. Documentation may include information from the supplier or manufacturer, bulk packaging for the disposables, and any other relevant information demonstrating that the disposable material is not polystyrene and is either Recyclable or Compostable.

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C. No person shall distribute or sell prepared food or beverages in any polystyrene food service ware at City facilities that have been rented, leased or are otherwise being used with permission of the City. If disposables are distributed or sold, they shall be either Recyclable or Compostable. This Subsection is limited to use of City facilities for which a person has entered into an agreement with the City to rent, lease or otherwise occupy a City facility. All facility rental agreements for any City facility shall include a provision requiring contracting parties to assume responsibility for preventing the utilization and/or distribution of polystyrene food service ware while using City facilities. The facility rental agreement shall indicate that a violating contractor's security deposit will be forfeited if the Director determines that polystyrene food service ware or disposables that are neither Recyclable nor Compostable was used in violation of the rental agreement.

D. No person shall use or distribute polystyrene food service ware at City-sponsored events, activities and City meetings open to the public. This Subsection shall apply to the function organizers, agents of the organizers, City contractors, and Food Providers.

E. The City, its departments, its City contractors, agents, and employees acting in their official capacity, shall not purchase, acquire or distribute for public use any polystyrene food service ware or disposables that are neither Recyclable nor Compostable, or Polystyrene Coolers.

F. All Food Providers shall certify compliance with this Chapter as part of the Environmental Health inspection process. No person, vendor, business or event promoter may sell, rent or otherwise provide any polystyrene product which is not wholly encapsulated or encased within a more durable material, except as exempted herein. This specifically includes, but is not limited to, cups, plates, bowls, clamshells and other

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products primarily for food service use, as well as Polystyrene Coolers and ice chests.

G. Straws and Utensils for take-away foods shall only be provided upon customer request, including at City facilities.

8.63.040 Administrative rules and regulations.

The Director may adopt administrative rules and regulations not inconsistent with provisions of this Chapter and state law as needed for the purpose of clarifying any of the administrative requirements of this Chapter, such as but not limited to specifying the types of acceptable alternative food packaging that meet the requirements of this Chapter and/or establishing frequency and protocol of City regulatory inspections and overall compliance monitoring. A proposed rule or regulation shall be posted at City Hall and public counters, providing notice that it is to be adopted no earlier than twenty-one (21) calendar days from the date on the posted notice and indicating the manner in which written comments may be provided to the Director. A copy of the final adopted rule or regulation shall be posted in City Hall and public counters no later than ten (10) days prior to the effective date of the rule or regulation. A copy of all adopted administrative rules and regulations shall be on file in the Director's office.

8.63.050 Exemption from compliance with this Chapter.

A. The following are exempt from the provisions of this Chapter:

1. Food prepared or packaged outside of the City, provided such food is not altered, packaged or repackaged within the City limits.

2. Coolers and ice chests, other than those defined as Polystyrene Coolers in this Chapter.

3. Food brought by individuals for personal consumption to City facilities, including but not limited to City parks, provided the City

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facility is being used for individual recreation or similar purposes and such facility use is not part of a larger organized event requiring a special events permit from the City.

4. City-sponsored or City-permitted events for which authorizations or permits were issued prior to the operative date of this ordinance; except events for which multi-year authorizations or permits were issued, which must comply within 365 days of the operative date of this ordinance.

5. Emergency supplies and services.

B. Food Providers that are obligated to purchase or have purchased polystyrene food service ware under a contract entered into within the year prior to the operative date of this ordinance are exempt from the provisions of this Chapter for six (6) months following its operative date.

C. The Director may exempt any person from Section 8.63.030 following the operative date of this ordinance, as follows:

1. A request for an exemption shall be filed in writing with the Director and shall include documentation of the reason for the claimed exemption and any other information necessary for the department to make its decision. The department may require the Applicant to provide additional information as necessary to make the required determinations.

2. The Director may grant an exemption for a maximum of one (1) year, with or without conditions, upon finding that compliance would create an undue hardship. Applications for exemption renewals will also be considered. Undue hardship shall be construed to include but not be limited to situations where:

a. There are no reasonable alternatives to polystyrene food service ware for reasons that are unique to the Applicant; or

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b. Compliance with the requirements of this Chapter would deprive a person of a legally protected right.

3. The Director's written decision on the exemption is effective within ten (10) days of the decision. Decisions of the Director may be appealed by the person applying for the exemption utilizing the process outlined in Section 8.63.080.

8.63.060 Authority to inspect and to monitor.

This Chapter shall be enforced by the City Health Officer, or designee, or by the Director of the Long Beach Public Works Department, or designee. These persons shall be known as enforcement officials and are authorized to take any actions necessary to enforce this Chapter, including inspection and monitoring of affected locations to determine compliance with this Chapter.

8.63.070 Operative date.

A. No City facilities, City contractors, City-sponsored events or City-permitted events shall distribute or utilize disposable food service ware containing polystyrene on or after three (3) months following the adoption of the ordinance codified in this Chapter by the City Council. City-sponsored or City-permitted events for which authorizations or permits were issued prior to the operative date of this Ordinance are exempt as provided in Subsection 8.63.050.A.4. City-sponsored or City-permitted events which are authorized or permitted for multiple years must comply within three hundred sixty-five (365) days of the operative of this ordinance.

B. No Food Provider shall distribute or utilize disposable food service ware containing polystyrene on or after nine (9) months following the operative date of the ordinance codified in this Chapter by the City Council.

C. No Small Food Provider shall distribute or utilize disposable

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food service ware containing polystyrene on or after eighteen (18) months following the operative date of the ordinance codified in this Chapter by the City Council.

D. No person shall sell or distribute Polystyrene Beads for crafts or as filler for bean bags, or Polystyrene Coolers on or after eighteen (18) months following the adoption of the ordinance codified in this Chapter by the City Council.

8.63.080 Appeal.

Any person or entity aggrieved by any decision or finding under the provisions of this Chapter with respect to citations for violations of this Chapter or granting or denying an application for an exemption from compliance with this Chapter, may appeal such decision or finding. An appeal must be filed within three (3) days after receipt of notice of any protested decision or finding by filing with the Director a letter of appeal briefly stating therein the basis for such appeal. A hearing shall be held on a date no more than ten (10) days after receipt of the letter of appeal. Appellant shall be given at least five (5) days' notice of the time and place of the hearing. A hearing officer, appointed by the City Manager, shall give the appellant, and any other interested party, a reasonable opportunity to be heard, in order to show cause why the decision or finding should not be upheld. In all such cases, the burden of proof shall be upon the appellant to show that there was no substantial evidence to support the decision or finding appealed. At the conclusion of the hearing, the hearing officer shall make a final and conclusive determination. The appeal process set forth in this Section does not apply to administrative citations or to orders to comply pursuant to Chapter 9.65.

8.63.090 Violation of this Chapter.

It shall be unlawful and a violation of this Chapter to fail to comply

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with any provision of this Chapter.

8.63.100 Enforcement and violation – penalty.

A. It shall be unlawful for any person to violate the provisions of this Chapter. A violation of this Chapter shall be punishable under the administrative citation procedures set forth in Chapter 9.65. The fine imposed for a particular violation shall be in the amount set forth in the administrative citation schedule established by resolution of the City Council. The Director has primary responsibility for enforcement of this Chapter.

B. All fines collected pursuant to this Chapter shall be deposited in the Refuse Fund to assist the department with its costs of implementing and enforcing the requirements of this Chapter.

8.63.110 Remedies not exclusive.

To the maximum extent permitted by law, administrative remedies specified in this Chapter are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.

8.63.120 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter, or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Chapter or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter irrespective of the fact that one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or effective. To this end the provisions of this Chapter are declared to

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be severable.

Section 2. The City Clerk shall certify to the passage of this ordinance by the City Council and cause it to be posted in three (3) conspicuous places in the City of Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the Mayor.

I hereby certify that the foregoing ordinance was adopted by the City Council of the City of Long Beach at its meeting of _____, 2018, by the following vote:

Ayes: Councilmembers: _____

_____

_____

_____

Noes: Councilmembers: _____

_____

Absent: Councilmembers: _____

_____

_____

City Clerk

Approved: _____ _____

( ) Mayor

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Long Beach, CA 90802-4664

Appendix B

Air Quality, Greenhouse Gas, Water, and Solid Waste Calculations

1. Population Data

Year	2016	2020	2035
Number of residents in Long bea	470140	491000	534100

2. Production Estimates

Baseline Polystyrene foodware production per capita per	1.80	4.40	7.00
Pounds of Polystyrene- City of L	846,252.00	2,068,616.00	3,290,980.00

3. Cumulative Number of Polystyrene Products and Substitutes

Product	Polystyrene	Paper	Plastic
Units	66,194,252.66	46,335,976.86	19,858,275.80
Assumed %		70%	30%

4. Weight of Products

Product	Polystyrene	Paper	Plastic
Weight in lbs	2,068,616.00	1,241,804.18	918,465.50

5. Weight of Containers (9 OZ)

Product / Container type	Polystyrene	Paper	Plastic
Plate	0.018	0.032	0.056
Bowl	0.006	0.018	0.043
Cup	0.006	0.020	0.019

Note: all weights in lbs

6. Manufacturing Emissions

Product	Polystyrene	Paper	Plastics
Emissions, MT CO2e	2,355.14	1,802.46	695.73

7. Water Use

Product	Polystyrene	Paper	Plastics
Water Use, gal	42,489,372.64	15,373,535.75	4,702,543.38

8. Waste

Product	Polystyrene	Paper	Plastics
Waste at Manufacturing, lbs	233,753.61	2,893,403.74	26,635.50
Landfilled waste, lbs	2,068,616.00	1,241,804.18	918,465.50
Total waste generated, metric t	1,044.33	1,875.69	428.69
Total waste generated, US tons	1,150.85	2,067.01	472.41
Net waste, US tons			1,388.57

9. Energy Use

Product	Polystyrene	Paper	Plastics
Energy Use, kWh	23,333,988.48	6,457,381.74	8,578,467.81

WorldCentric Eco-Profiles for Different Materials

Manufacturing One Pound of the Material	Energy Used	Water Used	Solid Waste	CO_2 Emissions
EPS	11.28	20.54	0.113	2.51
Virgin Coated Paper	5.2	12.38	2.33	3.2
100% Recycled Paperbc	3.06	3.53	1.34	1.71
Polypropylene (PP)	9.34	5.12	0.029	1.67
PET (Polyethylene)	10.28	7.45	0.087	2.81

Source: WorldCentric. "Energy Savings." 2013. Accessed April 17, 2013. Available at: http://www.worldcentric.org/sustainability/energy-savings

- All eco-profiles for plastics are referenced through PlasticsEurope
- Ingeo™ PLA eco-profile data is referenced from NatureWorks LLC
- Paperboard data is referenced from Environmental Paper Network Calculator

Offsite transit and idling HDV GHG EF's (g/mile)				
HDV Class	CO_2[1]	CH_4[2]	N_2O[2]	CO2e
Heavy Duty Truck	1743.61205	0.0051	0.0048	1745.169949
Emissions in Grams	1046167.23	3.06	2.88	1047079.109
Emissions in MT	1.04616723	0.00000306	0.00000288	**1.046167229**

Offsite transit and idling HDV Criteria Pollutant EF's (g/mile)									
HDV Class	VOC[1]	CO[1]	NO_X[1]	PM_{10} Exhaust[1]	PM_{10} tire wear[1]	PM_{10} road dust[3]	$PM_{2.5}$ Exhaust[1]	$PM_{2.5}$ road dust[3]	SO_X[1]
Heavy Duty Truck	0.19970528	0.650013935	6.180204349	0.028418274	0.036	0.30048	0.027189	0.07512	0.016635
Emissions in grams	119.823169	390.008361	3708.122609	17.05096418	21.60001	180.288	16.31335	45.07199	9.980924
Emissions in pounds/year	0.26416455	0.859820233	8.175001267	0.037590897	0.04762	0.397466	0.035965	0.099367	0.022004
Emission in pounds/day	0.00072374	0.002355672	0.022397264	0.000102989	0.00013	0.001089	9.85E-05	0.000272	6.03E-05

Assumption	
600	traveled miles total

PM10 Total	0.001322
PM2.5 Total	0.000371

1 EMFAC

2 California Climate Registry, General Reporting Protocol, Version 2.1 - http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf

3 EPA AP 42 Section 13.2.1 Paved Roads - Updated November 2006: https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0201.pdf

Coversion	
Grams to Pounds	Grams to Metric Tons
0.00220462	0.000001

Global Warming Potentials	
CO_2	1
CH_4	25
N_2O	298

ORDINANCE NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LONG BEACH AMENDING THE LONG BEACH MUNICIPAL CODE BY ADDING CHAPTER 8.63 PROHIBITING THE USE OF SINGLE-USE FOOD AND BEVERAGE CONTAINERS MADE OF EXPANDED POLYSTYRENE (EPS) FOAM, RIGID POLYSTYRENE #6, AND NON-RECYCLABLE AND NON-COMPOSTABLE MATERIAL FOR PREPARED FOOD DISTRIBUTION

The City Council of the City of Long Beach ordains as follows:

Section 1. Chapter 8.63 is added to the Long Beach Municipal Code to read as follows:

Chapter 8.63

POLYSTYRENE FOOD PACKAGING

8.63.010 Purpose.

The purpose of this Chapter is to regulate the use of polystyrene food packaging in order to reduce and prevent the presence of this type of litter in the environment, protect public health and promote environmentally sustainable practices in the City.

8.63.020 Definitions.

A. "Applicant" means any individual, firm, limited liability company, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever who applies for a City of Long Beach special events

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permit or an exemption to the requirements of this Chapter.

B. "City facility" means any building, structure, property, park or open space owned, managed or leased by the City, its agents, agencies, or departments. This includes, but is not limited to, the Queen Mary, the Convention Center, the Aquarium, and the Long Beach Airport.

C. "City contractor" means any person who enters into an agreement with the City to furnish products or services to or for the City.

D. "City-permitted event" means any event, activity or meeting occurring under the auspices of a City-issued permit.

E. "City-sponsored event" means any event, activity or meeting organized or sponsored, in whole or in part, by the City or any department of the City.

F. "Compostable" means all the material in the product or package will break down, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner. Compostable material must be made of paper, certified compostable plastics that meet ASTM D6400 or ASTM D6868 for compostability or cellulose-based packaging capable of being decomposed through composting or anaerobic digestion.

G. "Department" means the department of Public Works.

H. "Director" means the Director of the department of Public Works, or his/her designee, who is hereby designated to issue a compliance order or an administrative citation to enforce this Chapter pursuant to Chapters 1.25 or 1.26, respectively, of the Long Beach Municipal Code or to grant an exemption to compliance with this Chapter pursuant to Section 8.63.050.

I. "Disposable food service ware" or "disposables" means single-use, disposable products used for serving or transporting prepared

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food, including but not limited to plates, bowls, trays, wrappers or wrapping, platters, cartons, clamshells, condiment containers, cups or drink ware or any other container in or on which prepared foods are placed or packaged for consumption. This does not include straws, cup-lids, or Utensils, nor does it include packaging for unprepared foods.

J. "Food Provider" means any person or place, other than a "Small Food Provider," that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption. "Food Provider" includes but is not limited to: (1) a grocery store, supermarket, restaurant, drive-thru, cafe, coffee shop, snack shop, public food market, farmers market, convenience store, or similar fixed place where prepared food is available for sale on the premises or for take-away consumption, and (2) any mobile store, food vendor, caterer, food truck, vending machine or similar mobile outlet. "Food Provider" also includes any Franchise restaurant, drive-thru, café, coffee-shop or the like. "Food Provider" also includes any organization, group or individual that regularly provides prepared food to its members or the general public as a part of its activities or services.

K. "Franchise" means a food facility in the City that operates under common ownership or control with at least 15 other food facilities with the same name that offer for sale substantially the same menu items, or operates as a franchised outlet of a parent company with at least 15 other franchised outlets with the same name in the state that offer for sale substantially the same menu items.

L. "Small Food Provider" means a person or place that provides or sells prepared food within the City to the general public to be consumed on the premises or for take-away consumption, seating one hundred (100) or fewer persons.

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M. "Person" means any person, business, corporation, or event organizer or promoter; public, nonprofit or private entity, agency or institution; or partnership, association or other organization or group, however organized.

N. "Polystyrene" means a thermoplastic petrochemical material utilizing the styrene monomer, including but not limited to polystyrene foam or expanded polystyrene, processed by any number of techniques, including but not limited to fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, or extrusion-blow molding (extruded foam polystyrene), and clear or solid polystyrene (oriented polystyrene). The recycle code for polystyrene is "6" or "PS," either alone or in combination with other letters. This definition applies to all polystyrene food service ware, regardless of whether it exhibits a recycle code.

O. "Polystyrene Beads" means expanded polystyrene foam beads used as filler for toys and beanbags and in crafts.

P. "Polystyrene Cooler" means any cooler or ice chest made of polystyrene foam, where such foam is not fully encased in a durable material.

Q. "Polystyrene food service ware" means disposable food service ware that contains or utilizes polystyrene.

R. "Prepared food" means any food or beverage that is: (1) ready to consume without any further food preparation, alteration or repackaging; and (2) prepared, provided, sold or served by a food provider using any cooking, packaging or food preparation technique. Prepared food may be eaten either on or off the food provider's premises. Prepared food does not include: (1) any raw uncooked meat, poultry, fish or eggs, unless provided for consumption without further food preparation; and (2) fresh produce provided for consumption without food preparation or repackaging,

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including fruits, vegetables, and herbs, sold by grocery stores, supermarkets, food markets, farmers markets and other food vendors.

S. "Recyclable" means material that can be sorted, cleansed and reconstituted using the City's available Residential Recycling Program excluding Plastic containers labeled #6 and any Polystyrene.

T. "Recycle code" means a resin identification code placed on plastics to identify the material composition for separation of different types of plastics for recycling.

U. "Special events" means events that are open to the general public and take place within the public right-of-way or are located within a park and/or are coordinated through the City of Long Beach's special events permit process.

V. "Utensil" means a knife, fork, spoon, spork, chopstick, or the like, used for eating food.

8.63.030 Prohibition against distribution or sale of polystyrene food service ware.

A. No Food Provider shall distribute or sell any polystyrene food service ware in conjunction with the sale of prepared food or beverages at any location within the City of Long Beach.

B. Food Providers that distribute prepared food or beverages in disposable food service ware shall: (1) distribute only disposables that are either Recyclable or Compostable, and if plastic, exhibit a recycle code other than No. 6 or PS; and/or (2) maintain documentation about the composition of any disposable food service ware that does not exhibit a recycle code. Documentation may include information from the supplier or manufacturer, bulk packaging for the disposables, and any other relevant information demonstrating that the disposable material is not polystyrene and is either Recyclable or Compostable.

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C. No person shall distribute or sell prepared food or beverages in any polystyrene food service ware at City facilities that have been rented, leased or are otherwise being used with permission of the City. If disposables are distributed or sold, they shall be either Recyclable or Compostable. This Subsection is limited to use of City facilities for which a person has entered into an agreement with the City to rent, lease or otherwise occupy a City facility. All facility rental agreements for any City facility shall include a provision requiring contracting parties to assume responsibility for preventing the utilization and/or distribution of polystyrene food service ware while using City facilities. The facility rental agreement shall indicate that a violating contractor's security deposit will be forfeited if the Director determines that polystyrene food service ware or disposables that are neither Recyclable nor Compostable was used in violation of the rental agreement.

D. No person shall use or distribute polystyrene food service ware at City-sponsored events, activities and City meetings open to the public. This Subsection shall apply to the function organizers, agents of the organizers, City contractors, and Food Providers.

E. The City, its departments, its City contractors, agents, and employees acting in their official capacity, shall not purchase, acquire or distribute for public use any polystyrene food service ware or disposables that are neither Recyclable nor Compostable, or Polystyrene Coolers.

F. All Food Providers shall certify compliance with this Chapter as part of the Environmental Health inspection process. No person, vendor, business or event promoter may sell, rent or otherwise provide any polystyrene product which is not wholly encapsulated or encased within a more durable material, except as exempted herein. This specifically includes, but is not limited to, cups, plates, bowls, clamshells and other

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products primarily for food service use, as well as Polystyrene Coolers and ice chests.

G. Straws and Utensils for take-away foods shall only be provided upon customer request, including at City facilities.

8.63.040 Administrative rules and regulations.

The Director may adopt administrative rules and regulations not inconsistent with provisions of this Chapter and state law as needed for the purpose of clarifying any of the administrative requirements of this Chapter, such as but not limited to specifying the types of acceptable alternative food packaging that meet the requirements of this Chapter and/or establishing frequency and protocol of City regulatory inspections and overall compliance monitoring. A proposed rule or regulation shall be posted at City Hall and public counters, providing notice that it is to be adopted no earlier than twenty-one (21) calendar days from the date on the posted notice and indicating the manner in which written comments may be provided to the Director. A copy of the final adopted rule or regulation shall be posted in City Hall and public counters no later than ten (10) days prior to the effective date of the rule or regulation. A copy of all adopted administrative rules and regulations shall be on file in the Director's office.

8.63.050 Exemption from compliance with this Chapter.

A. The following are exempt from the provisions of this Chapter:

1. Food prepared or packaged outside of the City, provided such food is not altered, packaged or repackaged within the City limits.

2. Coolers and ice chests, other than those defined as Polystyrene Coolers in this Chapter.

3. Food brought by individuals for personal consumption to City facilities, including but not limited to City parks, provided the City

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facility is being used for individual recreation or similar purposes and such facility use is not part of a larger organized event requiring a special events permit from the City.

4. City-sponsored or City-permitted events for which authorizations or permits were issued prior to the operative date of this ordinance; except events for which multi-year authorizations or permits were issued, which must comply within 365 days of the operative date of this ordinance.

5. Emergency supplies and services.

B. Food Providers that are obligated to purchase or have purchased polystyrene food service ware under a contract entered into within the year prior to the operative date of this ordinance are exempt from the provisions of this Chapter for six (6) months following its operative date.

C. The Director may exempt any person from Section 8.63.030 following the operative date of this ordinance, as follows:

1. A request for an exemption shall be filed in writing with the Director and shall include documentation of the reason for the claimed exemption and any other information necessary for the department to make its decision. The department may require the Applicant to provide additional information as necessary to make the required determinations.

2. The Director may grant an exemption for a maximum of one (1) year, with or without conditions, upon finding that compliance would create an undue hardship. Applications for exemption renewals will also be considered. Undue hardship shall be construed to include but not be limited to situations where:

a. There are no reasonable alternatives to polystyrene food service ware for reasons that are unique to the Applicant; or

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b. Compliance with the requirements of this Chapter would deprive a person of a legally protected right.

3. The Director's written decision on the exemption is effective within ten (10) days of the decision. Decisions of the Director may be appealed by the person applying for the exemption utilizing the process outlined in Section 8.63.080.

8.63.060 Authority to inspect and to monitor.

This Chapter shall be enforced by the City Health Officer, or designee, or by the Director of the Long Beach Public Works Department, or designee. These persons shall be known as enforcement officials and are authorized to take any actions necessary to enforce this Chapter, including inspection and monitoring of affected locations to determine compliance with this Chapter.

8.63.070 Operative date.

A. No City facilities, City contractors, City-sponsored events or City-permitted events shall distribute or utilize disposable food service ware containing polystyrene on or after three (3) months following the adoption of the ordinance codified in this Chapter by the City Council. City-sponsored or City-permitted events for which authorizations or permits were issued prior to the operative date of this Ordinance are exempt as provided in Subsection 8.63.050.A.4. City-sponsored or City-permitted events which are authorized or permitted for multiple years must comply within three hundred sixty-five (365) days of the operative of this ordinance.

B. No Food Provider shall distribute or utilize disposable food service ware containing polystyrene on or after nine (9) months following the operative date of the ordinance codified in this Chapter by the City Council.

C. No Small Food Provider shall distribute or utilize disposable

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food service ware containing polystyrene on or after eighteen (18) months following the operative date of the ordinance codified in this Chapter by the City Council.

D. No person shall sell or distribute Polystyrene Beads for crafts or as filler for bean bags, or Polystyrene Coolers on or after eighteen (18) months following the adoption of the ordinance codified in this Chapter by the City Council.

8.63.080 Appeal.

Any person or entity aggrieved by any decision or finding under the provisions of this Chapter with respect to citations for violations of this Chapter or granting or denying an application for an exemption from compliance with this Chapter, may appeal such decision or finding. An appeal must be filed within three (3) days after receipt of notice of any protested decision or finding by filing with the Director a letter of appeal briefly stating therein the basis for such appeal. A hearing shall be held on a date no more than ten (10) days after receipt of the letter of appeal. Appellant shall be given at least five (5) days' notice of the time and place of the hearing. A hearing officer, appointed by the City Manager, shall give the appellant, and any other interested party, a reasonable opportunity to be heard, in order to show cause why the decision or finding should not be upheld. In all such cases, the burden of proof shall be upon the appellant to show that there was no substantial evidence to support the decision or finding appealed. At the conclusion of the hearing, the hearing officer shall make a final and conclusive determination. The appeal process set forth in this Section does not apply to administrative citations or to orders to comply pursuant to Chapter 9.65.

8.63.090 Violation of this Chapter.

It shall be unlawful and a violation of this Chapter to fail to comply

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with any provision of this Chapter.

8.63.100 Enforcement and violation – penalty.

A. It shall be unlawful for any person to violate the provisions of this Chapter. A violation of this Chapter shall be punishable under the administrative citation procedures set forth in Chapter 9.65. The fine imposed for a particular violation shall be in the amount set forth in the administrative citation schedule established by resolution of the City Council. The Director has primary responsibility for enforcement of this Chapter.

B. All fines collected pursuant to this Chapter shall be deposited in the Refuse Fund to assist the department with its costs of implementing and enforcing the requirements of this Chapter.

8.63.110 Remedies not exclusive.

To the maximum extent permitted by law, administrative remedies specified in this Chapter are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.

8.63.120 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter, or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Chapter or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter irrespective of the fact that one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or effective. To this end the provisions of this Chapter are declared to

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be severable.

Section 2. The City Clerk shall certify to the passage of this ordinance by the City Council and cause it to be posted in three (3) conspicuous places in the City of Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the Mayor.

I hereby certify that the foregoing ordinance was adopted by the City Council of the City of Long Beach at its meeting of _____, 2018, by the following vote:

Ayes: Councilmembers: _____

_____

_____

_____

Noes: Councilmembers: _____

_____

Absent: Councilmembers: _____

_____

_____

City Clerk

Approved: _____ _____

( ) Mayor

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