Agenda Item #:_____

Staff Report
City of Manhattan Beach

TO: Honorable Mayor Montgomery and Members of the City Council

THROUGH: Geoff Dolan, City Manager

FROM: Lindy Coe-Juell, Assistant to the City Manager

DATE: December 2, 2008

SUBJECT: Discuss and Provide Direction Regarding the Use of Polystyrene Foam Food Containers in Manhattan Beach

---

RECOMMENDATION:
Staff recommends that the City Council discuss the information in this report, provide direction for further information needed and provide direction for a possible ordinance to restrict the use of polystyrene foam food containers in Manhattan Beach.

FISCAL IMPLICATION:
There are no fiscal implications related to the recommendation. However, staff expects that some costs will be associated with an information outreach effort should the City Council decide to move forward with an ordinance restricting the use of polystyrene foam food containers.

BACKGROUND:
The City Council's 2008-2009 Workplan includes an item to review the use of Styrofoam (Styrofoam is the commonly used term for polystyrene foam) and what other cities have done to reduce, eliminate or recycle this product. This report provides information about the use of polystyrene foam, its impact on the environment and summarizes actions taken by other cities in California to reduce or eliminate the use of polystyrene foam food containers.

DISCUSSION:

Polystyrene Packaging Background
Polystyrene is a petroleum based byproduct that was introduced to the marketplace as a packaging material in the 1940s. When a blowing agent is added to polystyrene to create a foam material, it is referred to as expanded polystyrene, or polystyrene foam (PSF). The use of PSF packaging for food containers became commonplace starting in the 1960s as fast food restaurants and food vendors offering takeout became popular. The California Integrated Waste Management Board (CIWMB) estimates the total amount of polystyrene used annually for packaging and food service in California at 166,135 tons.[1]

[1] "Use and Disposal of Polystyrene in California," California Integrated Waste Board, page 3 (2004). www.ciwmb.ca.gov/Publications/Plasticsw/43204003.doc (November 10, 2008).

In general, polystyrene packaging products are designed to be disposable and PSF food containers have a useful life that can be measured in minutes or hours. Although its useful life is very short, polystyrene packaging takes several decades to hundreds of years to deteriorate in the environment or landfill and does not biodegrade. The majority of polystyrene packaging produced nationally is disposed rather than recycled. According to the CIWMB, PSF transportation packaging (e.g. polystyrene packaging placed around a new electronic item) is recycled at an estimated rate of 19 percent in California.[2] However, the CIWMB also reports that there is *no* meaningful recycling of PSF food containers.

PSF food containers present a challenge for recycling because of contamination from food residue. A survey conducted by the Los Angeles County Public Works Department found that an overwhelming majority of waste haulers and recycling facilities do not accept PSF food containers from curbside recycling due to contamination and lack of an available recycling market.[3] We have a similar situation in Manhattan Beach as our waste hauler does not currently accept polystyrene materials for recycling.

Litter and Environmental Impact

Because polystyrene does not biodegrade and takes many years to break down into smaller and smaller pieces, it is persistent in the environment. Due to its lightweight nature, polystyrene is easily blown by the wind, even when disposed of properly, and can become litter in the marine environment. The California Department of Transportation conducted a study from 1998-2000 and found that polystyrene represented 15 percent of the total volume of litter recovered from storm drains,[4] which eventually lead to discharge points at the beach and ocean.

Several studies have found that polystyrene makes up a significant percentage of beach litter in Southern California. The non-profit Heal the Bay has conducted a Coastal Cleanup Day event every year since 1990. During their 2008 Coastal Cleanup Day, more than 12,000 volunteers collected 181,000 pounds of debris from L.A. County watersheds and beaches. Styrofoam and cigarette butts top the list of the most frequently found items at these events.[5] A 2004 study of debris in the Los Angeles River found foamed polystyrene as the most abundant material.[6] Another study of marine debris conducted in Orange County in 1988 found that foamed polystyrene comprised 43 percent of material collected by abundance.[7]

Polystyrene litter negatively impacts the quality of the marine environment as a visible form of pollution. Moreover, polystyrene litter can be mistaken as food by marine wildlife causing choking, artificially filling their stomachs and infecting them with toxins that can poison the

[2] Ibid, page 4.
[3] "An Overview of Expanded Polystyrene Food Containers in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors," Los Angeles Department of Public Works, page 8 (2008).
[4] "Use and Disposal of Polystyrene in California," California Integrated Waste Board, page 3 (2004), www.ciwmb.ca.gov/Publications/Plasticsw/43204003.doc (November 10, 2008).
[5] "Heal the Bay Collects Millionth Pound of Trash", September 20, 2008 press release. http://www.healthebay.org/mediacenter/releases/default.asp (November 12, 2008)
[6] "Working our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California", page 5. http://conference.plasticdebris.org/whitepapers/CJ_Moore_Working_Our_Way_Upstream.doc (November 12, 2008)
[7] Study cited in the 2008 Los Angeles County Report to the Board of Supervisors, page 16.

animal.[8]

Municipal Bans

Many California cities have adopted ordinances that ban, or limit the use of, PSF food containers. Some have limited their bans to city facilities, while others have extended the ban to all restaurants and food vendors within their cities. The Los Angeles County 2008 Report to the Board of Supervisors provides a summary of the bans in 13 California cities (see Attachment B, pages 30-32). A database maintained by the non-profit group Californians Against Waste, also lists a number of jurisdictions in California and across the country that have enacted PSF food containers bans (see Attachment E).

Most of the jurisdictions that have enacted PSF bans did so in either the late 1980s or within the last several years. For example, the City of Berkeley and the County of Suffolk, NY banned the use of PSF food containers at restaurants and other food establishment in 1987 and 1988. At this same time, McDonald's restaurant began to phase out the use of PSF containers nationwide. Of interest to the history of this issue in Manhattan Beach, the City Council enacted a ban on polystyrene plastic takeout food containers in October 1988 (see Attachment F). The concern at that time seems to have been related to the blowing agent that is used to produce the foam material and its potential for ozone depletion. To staff's knowledge this local ban was not consistently advertised or enforced.

The ordinances that have been adopted in recent years to ban PSF food containers in California have focused on the litter problem and impact to the marine environment. Please see Attachment G for sample ordinances taken from a number of California cities. One of the differences among the various ordinances is the scope of the banned food container material types, or in other words, the type of alternative materials that are allowed. Some jurisdictions have allowed for compostable and biodegradable products as acceptable alternatives to PSF food containers. Due to the lack of an accessible commercial composting facility in Southern California, compostable and biodegradable alternative containers used in Manhattan Beach would be directed to landfill. However, these products may break down faster than PSF in the marine environment providing a positive environmental aspect.

Other cities have allowed for all alternatives that are recyclable (e.g. certain plastics and foil) through their recycling programs. Some have also allowed for paper alternatives even though they often become too contaminated with food residue to be recycled. Yet other cities, like Santa Monica and Calabasas, have allowed for recyclable materials, but have prohibited all types of #6 plastic (PSF is one type of #6 plastic) due to the difficulty in recycling that type of plastic material. Waste Management currently accepts #6 plastic, excluding polystyrene, in Manhattan Beach.

Costs of Alternative Products

Price comparisons of PSF and alternative food container products compiled by two groups, the City of Long Beach Environmental Committee and a non-profit called Earth Resources Foundation, generally show that the alternative materials are more expensive. The comparative analyses compiled by these two groups are shown as Attachment H. For example, the City of Long Beach comparison found that the average price per unit for a polystyrene plate is $0.05; while paper, biodegradable products and recyclable plastic are $0.03, $0.13 and $0.15, respectively. Although

[8] Web based materials cited the 2008 Los Angeles County Report to the Board of Supervisors, page 14.

acknowledging that polystyrene products are generally less expensive, one of the points made in the summary compiled by the Earth Resources Foundation is that polystyrene products come with a non-quantifiable cost to the marine environment.

Environmental Review

Staff has not found reference to any lawsuits filed against cities that have enacted bans on PSF food containers. However, the City of Monterey, which is considering enacting a ban, conducted an Initial Study resulting in a Negative Declaration (see Attachment I) to address the California Environmental Quality Act (CEQA). The Monterey Initial Study is the only CEQA study for a PSF food container ban of which staff is aware. In order to address CEQA, staff recommends that we conduct an Initial Study should the City Council provide direction to prepare an ordinance to restrict or ban the use of PSF food containers in Manhattan Beach.

CONCLUSSION:

Studies presented in this report have documented the voluminous amount of polystyrene packaging used in California, the significant presence of polystyrene litter in storm drains and the marine environment, the harmful impacts polystyrene has on the environment and the challenges to recycling PSF food containers. Based on this information, staff recommends that the City Council consider adopting an ordinance that would limit or ban the use of PSF food containers in Manhattan Beach. Staff requests that City Council provide direction for other information that would be useful in making a decision regarding PSF food containers and direct staff to return with this information and a draft ordinance for consideration.

ATTACHMENTS:

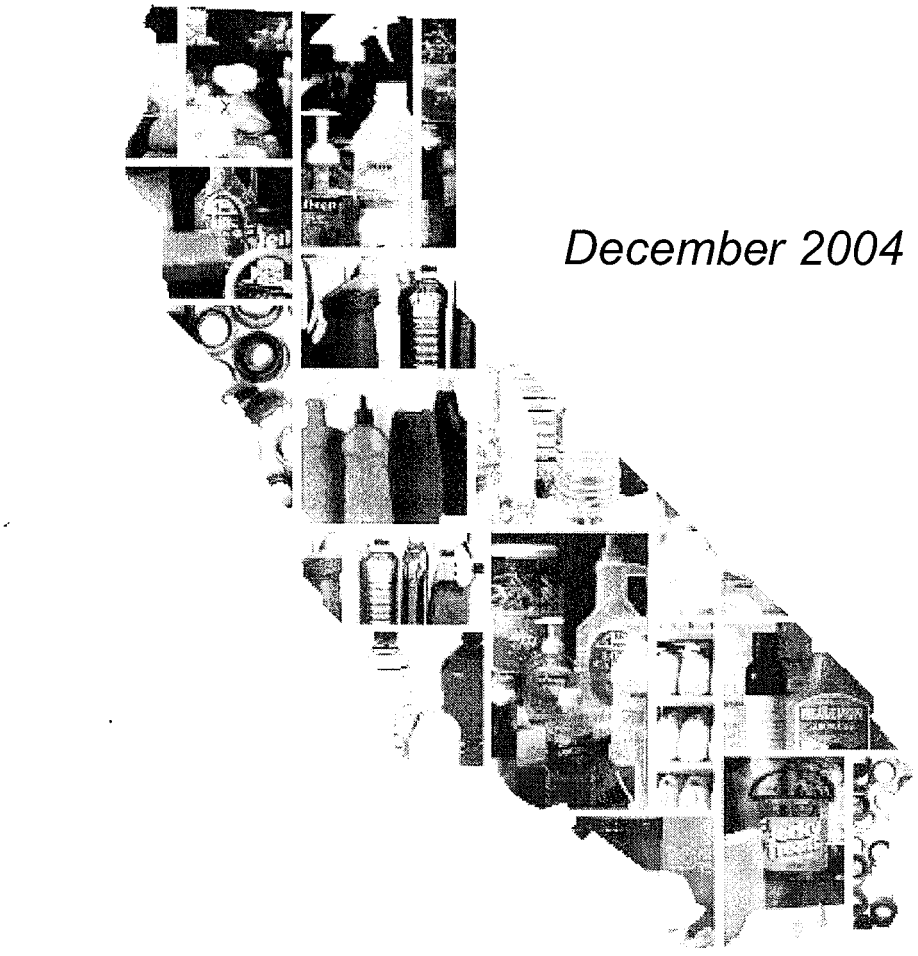
A: Use and Disposal of Polystyrene in California, California Integrated Waste Board (2004).
B: An Overview of Expanded Polystyrene Food Containers in Los Angeles County, Staff Report to the Los Angeles County Board of Supervisors (2008).
C: Heal the Bay Collects Millionth Pound of Trash, September 20, 2008 press release.
D: Working our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California. http://conference.plasticdebris.org/whitepapers/CJ_Moore_Working_Our_Way_Upstream.doc
E: Californians Against Waste Database Expanded Polystyrene Legislation
F: MBMC 5.80.010 Prohibition on the Use of Plastic Products by Takeout Food Vendors (1988)
G: Sample Ordinances Restricting the Use of Polystyrene Foam Food Containers
H: Alternative Food Container Cost Comparisons
I: City of Monterey CEQA Study

Attachment A:

"Use and Disposal of Polystyrene in California", California Integrated Waste Board (2004).

Use and Disposal of Polystyrene in California

A Report to the California Legislature



December 2004

INTEGRATED
WASTE
MANAGEMENT
BOARD

Zero Waste—You Make It Happen!

STATE OF CALIFORNIA

Arnold Schwarzenegger
Governor

Alan C. Lloyd, Ph.D.
Secretary, California Environmental Protection Agency

•

INTEGRATED WASTE MANAGEMENT BOARD

Rosario Marin
Board Chair

Linda Moulton-Patterson
Board Member

Rosalie Mulé
Board Member

Mike Paparian
Board Member

Cheryl Peace
Board Member

Carl Washington
Board Member

•

Mark Leary
Executive Director

For additional copies of this publication, contact:

Integrated Waste Management Board
Public Affairs Office, Publications Clearinghouse (MS–6)
1001 I Street
P.O. Box 4025
Sacramento, CA 95812-4025
www.ciwmb.ca.gov/Publications/
1-800-CA-WASTE (California only) or (916) 341-6306

Publication #432-04-003
Printed on recycled paper containing a minimum of 30 percent postconsumer content.

Prepared as part of contract number IWM-C0077 ($75,000) and Department of Conservation contract number 5000-012 ($35,000).

Join Governor Schwarzenegger to Keep California Rolling. Every Californian can help to reduce energy and fuel consumption. For a list of simple ways you can reduce demand and cut your energy and fuel costs, Flex Your Power and visit www.fypower.com/.

Table of Contents

Acknowledgements 3
Executive Summary 3
Introduction 4
Legislative Requirement 5
Approaches to Managing Plastics 5
Should Certain Plastic Products or Packaging Be Banned? 5
Should Plastic Manufacturers Be Assessed Additional Plastic Payments? 6
Plastics White Paper 6
National Packaging Covenant 7
Rates and Dates 7
California Bag and Film Alliance 8
Zero Waste 8
Types and Amount Produced 8
Markets for Recycled Polystyrene 11
Source Reduction 12
Biodegradable and Compostable Products 13
Reuse 13
Recycling and Reuse of Loose-Fill Packaging and Other Recycling 13
Recycling 14
EPS Protective Packaging Recycling 15
National Polystyrene Recycling Company 16
Canadian Polystyrene Recycling Association 17
Conversion Technology 18
Disposal 18
Environmental and Health Impacts 19
Recommendations 22
Source References and Comments 23

Exhibits, Tables and Sidebar

Exhibit 1. Polystyrene Types and Production Methods 9
Exhibit 2. Major Markets for Polystyrene 9
Exhibit 3. U.S. Polystyrene Production Over Time 15
Exhibit 4. National EPS Post-Consumer Recycling Rates and Quantities 16

Table 1. Polystyrene Types and Typical Products 10
Table 2. Estimated California Share of PS Production 11
Table 3. National PS Post-Consumer Recycled 13
Table 4. California PS Production and Recycling Estimates, 2001 14
Table 5. Typical PS Recycling Costs and Resin Prices 14
Table 6. EPS Packaging Collection Sites in California 15
Table 7. U.S. Coastal Cleanup Results – Foam, 1999 20
Table 8. Estimated Total Abundance and Weight of Trash on Orange County Beaches, August to September, 1999 21

Sidebar: Holiday EPS Collection Project 17

Acknowledgements

The California Integrated Waste Management Board (CIWMB) and the Department of Conservation (DOC) contracted with NewPoint Group Management Consultants to conduct a research project that included the preparation of this report.

The authors of this report, Jim Gibson and Wendy Pratt of NewPoint Group Management Consultants, wish to thank staff from the CIWMB and the DOC for their assistance on this project. They especially thank Calvin Young from the CIWMB for his input and edits to the report.

They also thank all of the many stakeholders that invested their time and energy providing valuable information and comments to this report.

Executive Summary

In 1999, California disposed of over 3.3 million tons of plastic in landfills, and that amount may well be increasing. (Source 25) That is roughly equivalent to the weight of the nearly 36 million Californians (averaging 185 pounds) being buried in California landfills every year. Plastics represent 8.9 percent (by weight) and perhaps twice as much (by volume) of the material disposed of in California landfills. Polystyrene (PS) is estimated at 0.8 percent (by weight) of the materials landfilled. However, due to its lightweight nature, its volume is much greater. In general, plastics rank behind paper as the second-largest category (by volume) of material being landfilled in California.

The two main types of PS are "general-purpose" (also known as "crystal") PS and "high-impact" (also known as "rubber-modified") PS. When a blowing agent is added to general purpose PS, it is referred to as "expandable (or "expanded") polystyrene" (EPS). Approximately 57 percent of the PS consumed in the U.S. in 1999 was general-purpose.

The total California share of PS production and sales in 2001 is estimated at 377,579 tons. Of this amount, approximately 77,006 tons were for packaging and 156,829 tons were for consumer/institutional applications. The total amount of PS for packaging and food service for California is estimated at 166,135 tons.

Due to changes in PS formulation and improved production processes, PS has achieved significant source reduction benefits. Unfortunately, industry officials claim there are limited opportunities for increased source reduction, especially in transportation packaging and food service. However, the CIWMB believes replacing single-use food service PS, that cannot be effectively recycled, with compostable alternatives may provide additional source reduction potential.

The Plastic Loose Fill Council (PLFC) coordinates reuse of PS loose fill, or "peanuts." Reuse of PS in California is estimated at between 20 and 30 percent, a total of 500 tons. (Source 14)

There are reportedly sufficient end markets available for all the clean EPS collected. PS recycling/reuse consists primarily of the reuse effort by the PLFC, some limited recycling of non-foam PS products (such as CD cases, videocassettes, and agricultural trays), and recycling of transportation packaging. There is no meaningful recycling of food service PS. Recycling of transportation packaging is estimated at 12 percent nationally, with California recycling 19–23 percent (2,500 tons).

In 1999, an estimated 300,000 tons of PS (0.8 percent of total waste) was landfilled, with a total disposal cost of $30 million.

However, not all PS is disposed of legally. The primary environmental impact of PS relates to litter and improperly disposed PS. According to a California Department of Transportation study during 1998–2000, PS represented 15 percent of the total volume of litter recovered from the storm drains. Other significant items include: plastic moldable, (16 percent), plastic film (12 percent), and paper (14 percent).

The CIWMB does not believe that a separate PS initiative is warranted. However, in an effort to minimize some of the side effects of PS, the CIWMB does recommend:

1. Increasing litter education efforts through more effective coordination between all State entities

that spend money on anti-litter education and/or cleanup.

2. That the State conduct a statewide litter study to identify the types and respective amounts (volume and weight) of litter and to quantify the environmental and societal impacts of litter.
3. That the Legislature consider making litter a civil offense, to facilitate issuing litter tickets.
4. That the State perform appropriate studies and testing (including demonstration projects) to determine the effectiveness of compostable and biodegradable plastics as alternatives to nondegradable polystyrene.
5. That the State continue to work with manufacturers and other stakeholders to promote additional manufacturer responsibility and product stewardship of polystyrene.

Introduction

California is faced with the significant challenge of safely and effectively managing the solid waste generated by nearly 36 million people in one of the largest economies in the world. Plastics are a major part of the California economy. In 2001, the California plastics industry employed more workers (152,335) than any other state and was ranked second in the nation in the value of shipments ($27.8 billion). California also leads the nation in the number of people employed and the value of polystyrene products produced. (Source: 1) Ironically, one of the most difficult materials in the state to manage is plastic, especially certain types of PS.

Expanded polystyrene (EPS) transportation packaging represents approximately 3 percent of PS produced nationally and it can be, and to some degree is, recycled. EPS transportation packaging is currently being recycled at 13.1 percent nationally and an estimated 19 percent in California. (Source: 2, p. 3) That is much better than the 6 percent national recycling rate for all plastics. However, additional opportunities exist to work with the EPS transportation packaging industry to voluntarily increase recycling to a much higher level.

Commercial and institutional PS products (including food service PS) represent 42 percent of PS production. Unfortunately, food service PS presents unique challenges in its management due in part to contamination from food residue. Because of these challenges and economic factors, no meaningful recycling of food service PS occurs currently. Food service PS, by its nature, has a useful life that can be measured in minutes or hours. Yet, it takes several decades to hundreds of years to deteriorate in the environment or landfill. Food service PS also represents a significant challenge as litter. Not only does the food service PS break into smaller pieces that may be ingested by wildlife, but materials may also be contaminated with food that decays, creating a health hazard.

PS that is illegally released through various means, including human behavior, as litter may also find its way through the storm drain system and into the marine environment. As an example, the Los Angeles Regional Water Quality Control Board issued a trash total maximum daily load (TMDL) order for the Los Angeles River requiring zero measurable trash in the storm drain system within 10 years. The County of Los Angeles and the cities affected by the TMDL estimate having to spend $373 million or more, over a 10-year period, to reduce the amount of trash in the storm drains in an effort to partially comply with the order. (Comment: 3)

An estimated 0.8 percent (by weight) of the material disposed of in California's landfills is PS. However, because of its light weight, the volume of PS disposed of in landfills is much higher than the weight amount would tend to indicate. For example, weight/volume estimates range from 9.6 pounds per cubic yard for expanded polystyrene (EPS) packaging to 22.2 pounds per cubic yard for other forms of PS. This compares to 100 pounds per cubic yard for cardboard and 2,160 pounds per cubic yard for broken glass. (Source: 4) However, because of the minimal amount of PS disposed of, additional management efforts may have only a minimal impact on the available space at California's landfills.

Legislative Requirement

In September 2001, Governor Gray Davis signed into law a bill requiring the CIWMB to study the use and disposal of PS in California (SB 1127, Karnette, Chapter 406, Statutes of 2001—referred to as "SB 1127" in this document, unless specific Public Resources Code [PRC] sections are cited). This report, required by the legislation to be submitted to the Legislature, presents findings and recommendations from the study.

SB 1127 required that the report must:

1. Analyze how consumers are using PS before it enters the waste stream, including, but not limited to, food service and transport packaging. The report must cover the amount of PS being landfilled annually in the state, the amount being reused and recycled, and the related environmental and public health implications, if any.
2. Recommend methods for source reducing, reusing, and recycling, and for diverting PS from the state's landfills.
3. Address the cost of disposing of PS in volume and weight terms.
4. Examine and identify current and potential markets for recycled PS products.

Concurrent with the legislative process for SB 1127, the CIWMB and DOC initiated a plastics white paper project to define current California plastics issues and provide a menu of policy options. The CIWMB and DOC were interested in (1) increasing the plastics recycling rate, (2) increasing the use of recycled plastics, and (3) promoting plastics resource conservation. Information on plastics, including PS, was obtained from a variety of sources and a wide range of stakeholders (including the plastics industry, environmental community, local and State government, waste haulers, processors, and others). Stakeholders have reviewed both the plastics white paper and this PS report.

The information in this report also considers other statutory requirements, including the California Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]). The IWMA requires the CIWMB and local agencies to promote the following priorities in managing solid waste: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and environmentally safe disposal.

Approaches to Managing Plastics

While the direction of the Legislature was to study PS, the CIWMB would be remiss if it did not also provide the larger context of plastics in general. CIWMB believes that California should develop a comprehensive approach to managing all plastics, not just PS. Development of this comprehensive and cohesive solution should be a collaborative process of all stakeholders, led by the State. However, it may be more practical to collaborate with a segment of the plastics industry as a pilot program and then modify the process to be more comprehensive.

This effort may contain elements found in approaches used in other countries, such as Australia, Canada, the European Union, previously proposed California legislation, and a new plastics industry-initiated coalition.

However, it should contain elements in at least the following four areas:

1. Product stewardship and financial responsibility.
2. Collection and market development.
3. Public information, public relations, and education.
4. Research and development of technologies.

These activities should use a shared-responsibility approach and be directed toward a "zero-waste" goal, with interim objectives for making progress toward that goal.

Should Certain Plastic Products or Packaging Be Banned?

Bans on the sale of plastic products are sometimes proposed as a means to solve plastic issues. Two potential plastic bans are most often mentioned: PVC containers, which are a contaminant in PET

recycling, and PS food service containers, which are not currently recycled due to economics and food contamination. Food containers are a major component of litter in storm drains.

While bans may help solve immediate problems, they are generally not an effective long-term solution. Implementing a processing fee that covers the extra costs of recycling PS products and containers that are not effectively recycled might be more effective than banning the materials.

Encouraging and promoting alternatives could be more effective than bans in solving problems posed by plastic materials. These alternatives could include biodegradable food service containers—used in conjunction with food composting—and increasing litter reduction efforts. Bans are narrow in scope, addressing a very specific problem with a very specific solution. This narrow approach is an ineffective means of addressing a material with the global applications and ramifications of plastics. While bans have, in some cases, been effective in bringing about change, policy makers should use them only as a last resort.

Should Plastic Manufacturers Be Assessed Additional Plastic Payments?

Some members of the plastics industry have already made significant contributions to plastics recycling in California. However, industry could provide increased funding support, especially as part of a broad collaborative initiative. Such an effort is likely to be more successful than the independent and more discrete industry efforts of the past.

Industry could expand its support of plastics initiatives in a number of ways. These could include funding specific earmarked programs or supporting mandatory fees or deposits. Another option would be voluntary deposit systems paid into a plastics fund based on sales in California, with the payment amount to be determined. Mandatory fees may be unpopular among industry groups and complicated to implement for both government and industry. Mandatory deposits could be complicated if they are not blended into the existing California Beverage Container Recycling and Litter Reduction Bill ("Bottle Bill") system, currently administered by DOC. A voluntary deposit system may be appropriate for some products or packages, and industry should consider these systems. Two examples of potential voluntary deposits are the Alberta Plastic Milk Jug Recycling Program (www.plasticsrecycling.ab.ca) and deposits on car batteries to encourage returns to the retailer.

Industry groups may also choose to self-fund initiatives for their products and packaging, such as the PLFC's recycling program for loose-fill packaging "peanuts." However, these programs all provide funding for fairly specific products and packaging.

For more generalized industry support of plastics recycling and resource conservation, one alternative would be to establish a payment based on sales of plastic packaging, products, and resin in California. Exemptions could be allowed for packaging and products with a certain level of postconsumer material and for postconsumer resin.

The CIWMB-led collaborative process could develop specific criteria for uses of the funds generated through one of the above mechanisms. Companies could choose to contribute to the fund voluntarily, or the fee could be mandatory. This type of fee would be much simpler to implement than an advance disposal fee on individual products or packages sold in the state.

Plastics White Paper

Most would agree that while there are many advantages to the use of PS, there are also some drawbacks. While there can be some improvements in the effective management of PS in California, what is needed is a comprehensive approach to managing all plastics, not just PS.

Plastics are the fastest-growing segment of the waste stream, often replacing other materials. Plastics represent an estimated 8.9 percent (by weight) of materials disposed of in landfills and perhaps twice that amount by volume. That ranks plastics as the second largest category of material (by volume) being landfilled, behind paper. Plastics recycling is stalled at approximately 5 percent, much lower than the recycling rate for many other materials. Most of the current plastics recycling is from beverage containers.

With some exceptions, the plastics industry is not adequately addressing plastics shortcomings on its

own. Currently, there is no comprehensive policy to effectively manage plastics and plastics waste in California. The two existing CIWMB plastics recycling programs combined (pertaining to regulated plastic trash bags and non-exempt rigid plastic packaging containers) address only a small percentage of the materials disposed of in landfills. Additionally, the Beverage Container Recycling Program at DOC targets various beverage containers, including plastic, sold in the state.

The Board, in partnership with DOC, recognized the need to address the above issues and contracted with NewPoint Group, Inc. (NPG). NPG assisted the Board, DOC, and stakeholders in identifying and analyzing the manufacturing and use cycle of plastics and in creating and developing innovative solutions to (1) conserve resources, (2) increase the plastics recycling rate, and (3) increase the use of recycled plastics. A Plastics White Paper (PWP) was developed and accepted by the CIWMB at its June 2003 meeting. (Source: 5) The PWP presented a solid background for understanding the many issues related to plastics. The PWP also presented numerous options for policymakers to consider to more effectively manage plastics in California.

National Packaging Covenant

An approach used to reduce packaging waste in Australia and New Zealand is the National Packaging Covenant (NPC). Initiated in 1999 by the Australian and New Zealand Environment & Conservation Council, the NPC is a collaborative approach between state government, local government, and the entire packaging supply chain (and relevant industry associations). The NPC is a voluntary, self-regulatory approach to provide improved management of used packaging based on the principles of product stewardship and shared responsibility.

The NPC system has two main components:

- The Covenant serves as a framework or umbrella document. As the primary document, it sets broad parameters, covers the entire packaging supply chain, is self-regulatory, not prescriptive (does not mandate how companies comply), and has a limited lifespan (five years).
- The Regulatory Safety Net or National Environment Protection Measure (NEPM) is designed to support the NPC and, in an effort to ensure consistency, include those who did not sign the Covenant. The NEPM includes "take back" requirements with the focus on "brandowners" (such as large grocery chains). Brandowners' participation is necessary due to their position as key decision-makers and their ability to influence the supply chain as customers of packaging manufacturers.

The NPC includes action plans for each participant that set forth specific measures and activities. Associations may prepare plans for an industry group or local governments. There are also provisions for funding the operation.

While the NPC is still relatively new, early indications are encouraging. It is favorably received by the packaging industry because it allows them to develop their own action plans and method of compliance. It also avoids potentially more onerous laws and regulations. It is also supported by most of the environmental community and government sector.

Rates and Dates

Another approach was proposed in SB 1069 (Chesbro, 2001-02 Legislative Session). If passed, the bill would have, among other things, imposed a plastic pollution fee on manufacturers of containers for every plastic container of a resin type that does not achieve a 50 percent recycling rate by a future date. The fee would not have applied to beverage containers as defined by the Bottle Bill.

The fee would have been the difference between the average cost of recycling and the average scrap value of each resin type. The monies would have been used to promote the recycling of plastic containers, including payments to recyclers and local governments to offset the cost of recycling plastic containers.

If the 50 percent recycling rate goal were not met, the proposed law would have imposed an economic transfer from manufacturers to recyclers to reduce the cost of recycling. That would have decreased the cost of recycled plastic and, presumably, increased its use.

Proponents of this "rates and dates" approach claim it is needed to motivate responsible parties and would allow flexibility in how to achieve the recycling goals. Opponents argue that it sets arbitrary and political goals with little, if any, economic or environmental rationale and without considering the numerous technical and logistical issues.

California Bag and Film Alliance

The California Bag and Film Alliance (CBFA) is a coalition of stakeholders representing the national Film and Bag Federation (FBF), which is a business unit of the Society of the Plastics Industry (SPI), the California Film Extruders and Converters Association (CFECA), and other plastics interests. The CBFA represents approximately 80 percent of the manufacturers supplying plastic film and bags to California.

Most of the CBFA members acknowledge that while their products serve a consumer need, their products can also have unintended consequences that should be addressed, including introduction into the litter and marine debris stream. The Plastic Film Industry Environmental Resolution (PIER) marks the first substantive proposal to advance recycling, biodegradability, and comprehensive management of plastic discards from any segment of the California plastics industry. The PIER provides a framework for collaborative solutions that address the environmental impacts associated with plastic products. Detailed action plans will be developed in a collaborative process.

Zero Waste

In its 2001 Strategic Plan, the CIWMB determined that it will "Promote a 'zero-waste California' where the public, industry, and government strive to reduce, reuse, or recycle all municipal solid waste materials back into nature or the marketplace in a manner that protects human health and the environment and honors the principles of California's Integrated Waste Management Act." The Zero Waste philosophy focuses on the most efficient use of natural resources in order to maximize the reduction of waste and protect the environment.

It also includes, but is not limited to, maximizing recycling and ensuring that products are designed for reuse or repair or are recycled back into the environment. Zero Waste involves utilizing the most effective industry processing or manufacturing practices to efficiently conserve the use of raw materials, including front-end design for efficiency, while educating consumers.

It includes promoting technology to encourage source reduction on the front end and recycling and other technologies on the back end, while harnessing the energy potential in "waste" by using new and clean technology to convert materials directly into green fuel or gas for the production of electricity.

Types and Amount Produced

PS comes in many types and forms and is used in a variety of applications. However, the two major types are "general-purpose" (also known as "crystal") PS and "high-impact" (also known as "rubber-modified") PS. When a blowing agent (usually pentane) is added to general purpose PS, the material is referred to as "expandable (or "expanded") polystyrene" (EPS). Approximately 57 percent of the PS consumed in the U.S. in 1999 was general-purpose. Table 1 summarizes various PS types and typical products. Examples of general-purpose PS include CD jewel cases, salad "clamshells," and cutlery. Examples of high-impact PS (HIPS) include horticultural trays, yogurt containers, business machine housings, and office supplies. Examples of EPS, sometimes incorrectly referred to as "Styrofoam®," include beverage cups, packaging for electronics, and loose-fill "peanuts."

PS's two major types and four major production methods are reflected in Exhibit 1: extrusion, extrusion foam, injection molded, and expandable bead. Extrusion PS includes agricultural trays, clamshells, meat trays, dairy containers, and decorative panels. Molded PS products include products such as appliance housings, CD jewel cases, tumblers, flatware, and some EPS packaging. Expanded PS includes cups, shape-molded packaging, and loose-fill packaging peanuts.

Exhibit 1. Polystyrene Types and Production Methods

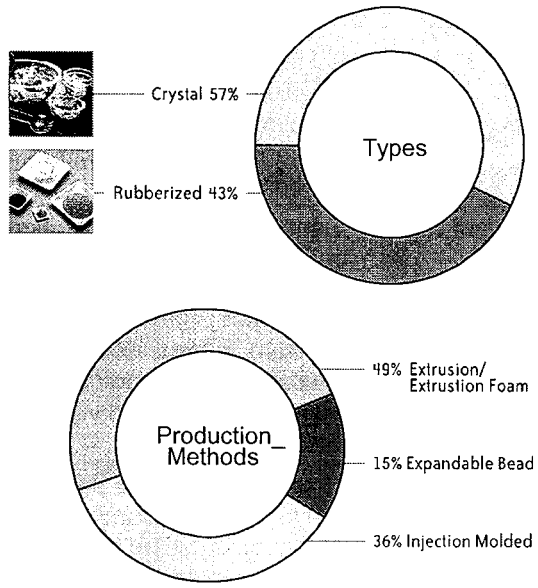


Exhibit 2 illustrates the percent of PS used in each of six major markets. Consumer and institutional products, including PS food service, is the largest category, with 41 percent of the total. Packaging is second, with 19 percent of the total use. (Source: 6, p. 73) PS sales in the US increased fairly steadily from 1991 to 1999. Sales peaked in 1999 and have declined since then, as shown in Exhibit 3. (Source: 8, p. 59)

California production figures for PS must be estimated from national figures, since no data collected specifically for states is available. Table 2 illustrates the estimated California share of PS sales calculated based on population, according to U.S. Census data. The total California share of PS production and sales are estimated at 377,579 tons.

Exhibit 2. Major Markets for Polystyrene

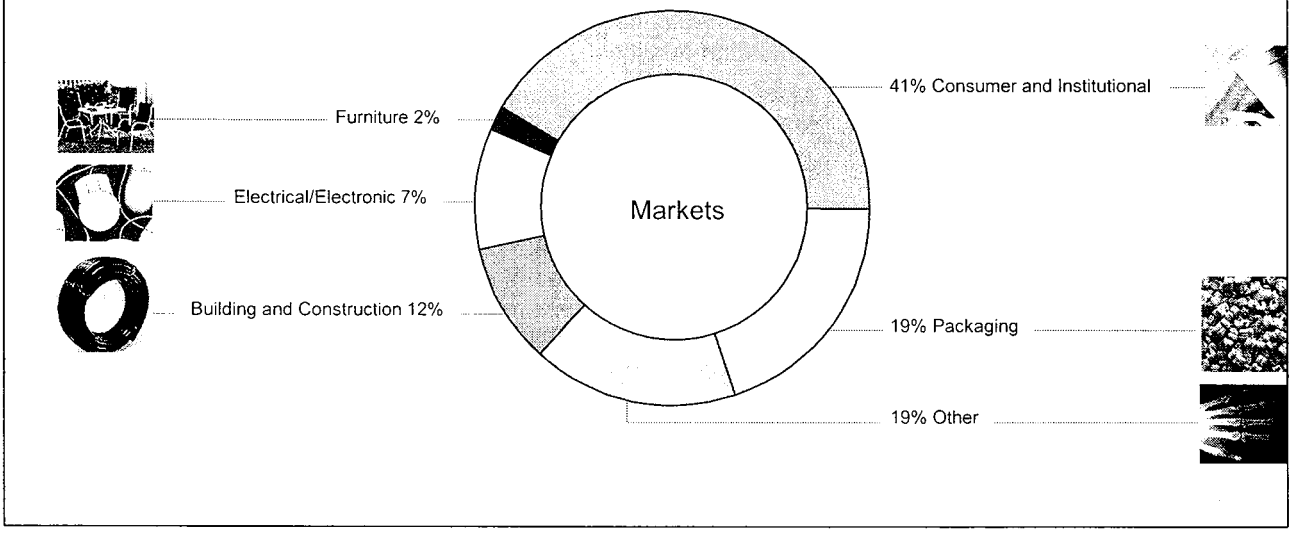


Table 1: Polystyrene Types and Typical Products

Polystyrene Type	Description	Typical Products
Crystal (rigid)	Transparent, can be injection molded or extruded, rigid, good clarity and stiffness.	Audio equipment, dust covers, clear audiotape cassette, and CD jewel cases; office supplies, computer disk reels, tumblers, flatware, housewares, display cases, petri dishes, pipettes, bottles.
Impact (rubberized)	Opaque, higher strength, less clarity and stiffness than crystal PS	Electronic appliance cabinets, business machine housings, video cassettes, small appliances, smoke detectors, furniture, refrigerator door liners, luggage, horticulture trays, and dairy and yogurt containers.
Non-foamed PS sheet	Extruded or oriented, melted plastic is forced through a flat-faced die, extruded sheet is then thermoformed. Can use impact PS or crystal PS (for clear).	Glazing, decorative panels, cookie trays, document wrap, blister pack, salad containers, lids, plates, and bowls.
Foamed PS sheet	Extruded, thermoformed, made by extruding crystal PS with a foaming agent (usually pentane), material is extruded through an annular die and foamed as the material exits the die, sheet thickness and density is varied to meet end-use requirements, has excellent thermal insulation qualities.	Egg cartons, meat and poultry trays, food service trays, fast food packaging, insulation, protective covers for glass bottles, plates, hinged containers, cups.
Expanded PS (EPS)	Made from PS resin granules impregnated with a blowing agent (typically pentane). Expanding beads fuse together to form the finished product, which is white, and 90 to 95 percent air (99.6 percent for loose fill). Small beads are used for cups and containers, medium beads for shape-molded packaging, and large beads for the expanded loose-fill packaging (peanuts). It insulates, is lightweight, and resists moisture. Loose-fill peanuts sold in California that contain recycled material are often colored green.	Insulation board, molds for metal casting, flotation devices, packaging (molded shapes, peanuts), cups, and containers.

Applying the market share information to the California estimate, 77,006 tons is packaging, and 156,829 tons are consumer/institutional applications. The packaging and food service PS for California was an estimated 166,135 tons in 2001.

According to the Alliance of Foam Packaging Recyclers Association, 16 manufacturers of EPS foam packaging are in California operating at 22 locations. These facilities use an estimated 11,000 to 13,000 tons of resin per year, and employ more than

1,000 workers. The total number of firms in California manufacturing all types of PS is about 125. These firms employ more than 11,600 people, although some may be involved with other resins as well.

Markets for Recycled Polystyrene

Several markets are available for EPS in both closed- and open-loop recycling. Sufficient end markets are available for all the clean EPS collected. Almost half of the EPS packaging recycled—both molded and loose-fill—is remanufactured back into EPS packaging.

Other applications for EPS recycling include building applications such as siding and deck board, ceiling texture, molding, electronic products, auto products, agricultural products, office supplies, egg cartons, and beanbag filler. Markets for non-foam PS include coat hangers, picture frames, waste baskets, videocassettes, flowerpots, and nursery trays.

Companies that produce non-foam rigid PS products consume about 25 percent of the EPS packaging recycled. EPS molders consume about 50 percent, and loose fill manufacturers purchase the remaining 25 percent. The amount of material currently available limits the recycled-content level in molded EPS to about 2 percent post consumer material. (Source: 10, p. 4)

Recycled-content levels in EPS molded packaging can be as high as 25 percent, but they are typically much lower. (Source: 10, p. 3) These levels could increase in the future. One manufacturer of EPS recycling equipment recently obtained acceptable ASTM standards with EPS made with 20 percent and 40 percent regrind (recycled content). (Source: 11, p. 3) Applications with higher cushioning requirements may need to use a lower recycled-content level.

Molders typically incorporate recycled content into their products by blending in used expanded beads from products they take in and grind down to bead levels. Because the recycled EPS is not reblown, it has a different shape and can only be used in limited quantities.

This material serves primarily as "dead filler" material because it lacks a blowing agent to make it into foam. Due to design restrictions, molded EPS—especially thin material—can tolerate 5 to 10 percent recycled EPS without a loss in quality characteristics. Less demanding applications, such as EPS block manufacturing, can tolerate higher levels. (Source: 12, p. 3)

Another primary market for recycled EPS molded packaging is the production of loose-fill packaging. Loose fill packaging manufacturers are active in EPS collection programs. Loose fill typically ranges from 25 percent to 100 percent recycled content (depending on producer), although the content is not 100 percent postconsumer.

Table 2: Estimated California Share of PS Production

Market	Tons
Packaging	77,006
Building and Construction	36,249
Electrical and Electronics	33,376
Furniture	5,885
Consumer and Institutional	156,829
Other	64,234
Total	377,579

More than 65 percent of the EPS one California manufacturer (FP International) uses is postconsumer. If loose fill continues to be reused in the take-back program, material could potentially be diverted from the landfill for many cycles of use.

The building and construction industry, including several companies located in California, provides a number of markets for PS. Rastra Building Systems produces a concrete form made of 85 percent recycled PS. The material is produced at two locations in California that have a combined capacity of 156 tons per year.

RING Industrial Group, an Oakland, Tennessee, company, uses an EPS bead for an aggregate substitute in a variety of drainage applications, including septic tank drain fields. This business, and its sister company Rapac, Inc., set up densifiers at qualifying locations across the United States, including California. These companies collect approximately 5,000 tons of modified or fire retardant EPS each year, including approximately 500 tons from California. (Source: 13)

Timbron, a Stockton based company, densifies EPS to produce interior moldings and other similar products that can be sawed and nailed like wood. Timbron products are sold at Home Depot stores. EPS constitutes 75 percent of the company's finished products, with demand at more than 18 million pounds annually.

Timbron provides large suppliers of recycled EPS with a $60,000 densifier, as well as support for labor in collecting and densifying the material. Suppliers include HP, Epson, Sony, Panasonic, Marko Foam Products, and Tatung America. Timbron uses both postconsumer and post-industrial EPS. The company received a $1 million loan from the CIWMB's Recycling Market Development Zone loan program in 1999.

High impact PS (HIPS) is used in various electronic devices, such as casings for televisions, computers, and telephones. It is also used for office products such as file trays and rulers, horticultural trays, and many other products. While there are currently no reliable figures for the potential market, the CPRA operation reportedly does not have any problem selling its production of approximately 20 tons per day in the open market.

Source Reduction

According to Public Resources Code section 40196, source reduction is any action that causes a net reduction in the generation of solid waste. This can include reducing the use of nonrecyclable materials, replacing disposable materials and products with reusable materials and products, reducing packaging, and increasing the efficiency of the use of plastic. The IWMA recognizes that source reduction is the highest priority in managing solid waste.

Depending on the application, PS can be as much as 95–99 percent air, representing a significant opportunity for source reduction. Additionally, the materials replaced by PS are often heavier, further demonstrating the source reduction benefits of PS.

In its 1999 report, *Waste Management and Reduction Trends in the Polystyrene Industry, 1974-1997*, Franklin Associates quantified many aspects of PS, including the impact of using resins more efficiently and substituting PS for other packaging materials. In its 1996 report, prepared for the Polystyrene Packaging Council—a business unit of the American Plastics Council—Franklin Associates surveyed companies on their use of PS from 1974-1994. Franklin Associates found that during that period, source reduction increased 204,000 tons through more efficient use of resins and by reducing the amount of resin used. This source reduction saved an estimated 17.8 trillion British thermal units (Btu) of energy over the life cycle of the products. The life cycle includes the energy used to extract and process the raw material and to produce a pellet, as well as transportation of the PS through various levels of manufacturing and distribution and to its ultimate disposition (disposal, reuse, or recycling).

Source reduction for PS can include down gauging and product redesign to use less material. It may also include reducing the use of nonrecyclable materials with recyclable materials and replacing disposable products with recyclable or compostable products.

Source reduction opportunities for manufactures of PS products include:

1. Designing products and packaging in such a manner that less material is used in production and/or transportation.
2. Increasing the useful life of products (including making products reusable).
3. Replacement of single-use products that cannot be recycled effectively with recyclable or compostable alternatives.

PS product manufacturers have argued that competitive business pressures to use materials more efficiently have already driven most production methods to their optimum level. Accordingly, there are few opportunities to further change product design or packaging to use less material. Opportunities for reuse are discussed later in this report. Substituting a compostable material for a nonrecyclable material would be most effective in situations where the material was included in a food-waste composting program.

Biodegradable and Compostable Products

Biodegradable and compostable plastics are a technological innovation that may eventually serve as a replacement for some PS food service products—cups, "clamshells," plates, and cutlery. These items are often found in litter. Several companies have developed or are developing compostable and/or biodegradable alternatives, while others are testing products.

There are several products and processes that claim to be compostable or biodegradable. While these materials may not be currently competitive in terms of price or some quality characteristics, they appear to hold significant promise.

The value of biodegradable food service packaging is two-fold, in that (1) institutional users can incorporate the packaging into new small-scale food composting collection systems without the labor and expense of separating the container from the food and (2) if the material is improperly disposed or blows out of trash cans, the negative impact on wildlife and storm drain systems is minimized when the material biodegrades.

The CIWMB has formed a diverse working group of stakeholders to identify the issues and responses that may be necessary for decision-makers to form sound public policy based on facts and science. In addition to developing information to educate and inform decision-makers, the group will identify additional testing and pilot programs, recommend the use of existing biodegradable specifications (such as ASTM 6400), and take other actions that may be needed for decision-makers to determine whether the State should support such efforts and what form that support may take.

Table 3: National Postconsumer PS Types and Recycling Rates

PS Type	Tons Recycled (1999)	Tons Recycled, (2000)	Recycling Rate (2000)
Bottles and Containers	100	100	0.1%
Protective Packaging	10,100	12,450	12.4%
Food Service Packaging	3,250	2,250	0.2%
Other Applications	10,250	11,350	0.6%
Total Recycled	23,700	26,150	0.8%

We must realize that using biodegradable food service products alone will not eliminate litter problems. Some have argued that it may even increase litter if consumers believe that it no longer poses an environmental problem.

Reuse

Recycling and Reuse of Loose-Fill Packaging and Other Recycling

A second major area of PS recycling and reuse is loose-fill packaging, or peanuts. In 1991, the nation's four major EPS loose-fill packaging manufacturers established the PLFC. (Source: 14) Loose-fill packaging customers, such as mail order companies, established the reuse program in part because of environmental concerns.

Two companies, FP International and Storopack, Inc., operate plants that produce and recycle EPS loose-fill packaging in California. FPI locations include Redwood City, and Commerce. Storopack locations include Anaheim, Downey, and San Jose. Since its inception in 1991, industry has paid over $650,000 in program infrastructure costs. These costs include the toll-free 800 number, a Web site, and staffing for administration and fulfillment functions. (Source: 15, p. 6)

The PLFC operates a national manufacturer-sponsored postconsumer EPS packaging take-back

program. The program provides a toll-free Peanut Hotline* to provide callers with the nearest location that accepts loose-fill packaging for reuse. The hotline receives about 4,000 calls a month.

In addition, more than 200 mail order and other companies include information on the program with their packaging. Many communities list information on the program in recycling guides. More than 375 locations in California, and more than 1,500 nationwide, participate in the program. Take-back locations primarily include The UPS Store, Mail Boxes Etc., and other similar packaging stores.

The program has broad benefits to all participants. Collection sites provide improved customer service, and businesses are able to reduce their purchase of new packaging peanuts by 50 percent by reusing returned peanuts. Industry reuse of peanuts is estimated at 30 percent of the 22,500 tons of loose-fill packaging manufactured each year. (Source: 16[b], p. ES-3) The reuse rate for EPS in California is estimated at between 20 and 30 percent, a total of about 500 tons per year. This does not include home and business reuse of loose-fill packaging from received packages.

Recycling

While there is no meaningful food service recycling in the United States, several established recycling programs are available for non-food service PS. Three primary categories of materials are recycled:

Transport packaging (EPS) is collected at manufacturing facilities across the United States, including 12 in California (see Table 6).

Loose-fill packaging is also collected at these facilities as well as at packaging and mailbox locations across the country. This was discussed previously in the report under *Reuse*.

Other types of PS recycling make up about 43 percent of the total PS recycled. Materials recycled include insulation board, audio- and VHS cassettes, CD jewel boxes, and nursery trays and containers. Most of these materials are recycled through commercial sources, not curbside programs.

In addition, a very small amount of PS food container recycling, as well as post-industrial PS scrap recycling, is collected from some institutional locations.

National PS recycling quantities are shown in Exhibit 4 and Table 3. (Source: 16[a], p. 1; 16[c], p. 2)

Table 4 illustrates the California share (by population) of PS recycled. (Comment: 17) These estimates may be conservative, since California likely has a greater percentage of PS recycling due to the larger number of EPS recycling facilities statewide. Table 5 illustrates typical recycling costs compared to recycled and virgin resin prices. (Source: 18[a]; 18[b]) The margin between recycled resin prices and recycling costs is relatively small.

Table 4: California PS Production and Recycling Estimates, 2001

	Calif. Tons Produced	Recycling Rate	Tons Recycled
Bottles and Containers	7,552	0.1%	6
Protective Packaging	11,327	12.4%	1,405
Food Service Packaging	154,808	0.2%	310
Other Applications	203,893	0.6%	1,223
Total	377,580	0.8%	2,944

Table 5: Typical PS Recycling Costs and Resin Prices

Type of PS Recycling	Cost or Price per Pound
Food Service Recycling Cost	$.10 to .50
Recycled Resin Price	$.38 to .45
Virgin Resin Price	$.40 to .70

*Peanut Hotline number: (800) 282-2214

EPS Protective Packaging Recycling

The Alliance of Foam Packaging Recyclers (AFPR) was established in 1991 to help support foam packaging recycling. This is a trade association of more than 80 EPS protective-packaging manufacturers, equipment manufacturers, and resin suppliers. More than 110 member plant locations nationwide—as well as many other non-member locations (such as loose-fill packaging manufacturers)—collect EPS. The AFPR also accepts EPS packaging consumers send in the mail.

Most EPS recycling in California (and nationwide) occurs through EPS manufacturing facilities. Twelve facilities in California accept EPS packaging, as shown in Table 6. (Source: 19) These facilities take-back primarily molded EPS packaging. One of these companies, FP International, was the first company to recycle EPS packaging, starting in 1989. In California since 1990, FP International has recycled over 17 tons of molded EPS packaging from California, including 9.8 tons of postconsumer material. (Source: 20)

The estimated recycling rate of these California companies is 19 to 23 percent, significantly higher than the national rate of 12 percent. California EPS manufacturers collected an estimated 2,500 tons of postconsumer EPS in 2000, again significantly more than the estimated California share. (Source: 21, p. 4)

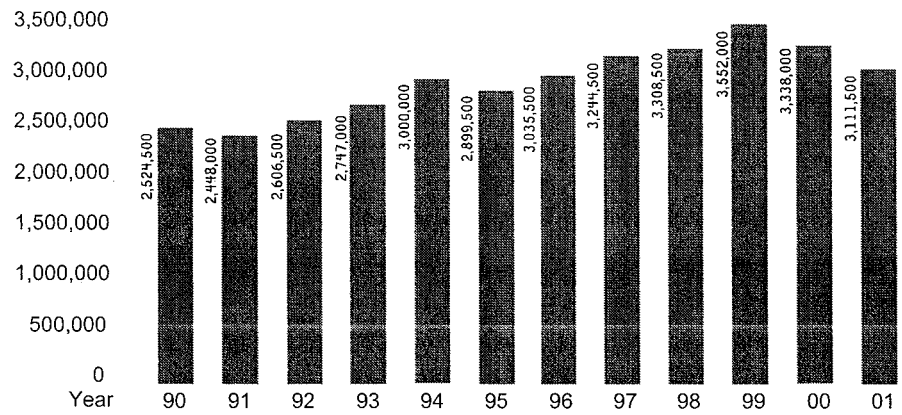
Table 6: EPS Packaging Collection Sites in California

Company	Location
1. Astrofoam Molding	Camarillo
2. Foam Fabricators	Modesto
3. Foam Fabricators	Compton
4. FP International	Commerce
5. FP International	Redwood City
6. Marko Foam Products, Inc.	Corona
7. Storopack, Inc.	Downey
8. Storopack, Inc.	Anaheim
9. Storopack, Inc.	San Jose
10. Styrotek, Inc.	Delano
11. Topper Plastics	Covina
12. Tuscarora Incorporated	Hayward

Most EPS packaging is returned from larger manufacturers and distribution centers such as furniture and automobile manufacturers. For example, Ethan Allen is developing a collection system that could incorporate up to 300 stores and 26 distribution centers (two in California). To make the program economical, trucks backhaul EPS to the distribution centers, where the EPS is collected and sent to a manufacturing facility. Transporting loose EPS by truck is economical within a 100-mile radius. If a backhaul vehicle is not available, costs range from $85 to $450 per shipment.

Larger manufacturers can densify the PS before shipping it to reduce costs. EPS collection programs from retailers are limited. Retailers are resistant to establishing collection systems, even with

Exhibit 3. U.S. Polystyrene Production Over Time
(Tons Per Year)



EPS industry support. The retailers do not want to give up valuable warehouse or parking lot space.

A few local governments provide drop-off programs for EPS. One EPS manufacturer, FP International, supports drop-off facilities in Palo Alto and San Mateo County. Contamination is more of an issue with these programs than the manufacturer take-back systems. Standards for EPS recycling are quite high. Manufacturers require material that is not contaminated with substances or materials such as adhesives, film plastic, cardboard, and dirt.

Materials that have been collected through a curbside program, or even left in a drop-off bin or outside in a storage yard, are usually too contaminated for end users. This contamination limits the amount of EPS material that can be recycled. As with other plastics recycling, the key to successful EPS recycling is obtaining sufficient quantities of clean material.

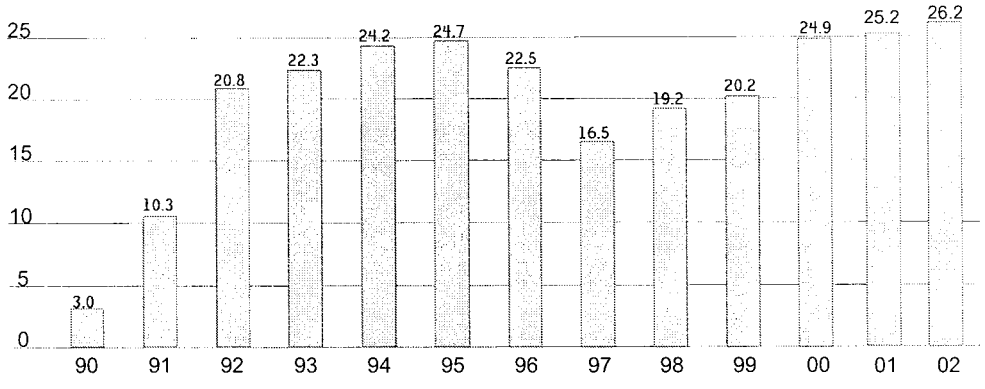
National Polystyrene Recycling Company

In the late 1980s, responding to growing consumer pressure and concern about landfill space in the United States, the PS industry initiated postconsumer recycling programs. In 1989, industry established the National Polystyrene Recycling Company (NPRC) to recycle PS food service and molded packaging. The NPRC was a $16 million startup effort funded by the eight resin supplier companies existing at the time in the U.S. (Source: 22, comments pertaining to p. 9 of draft report) The five recycling facilities (and one affiliated facility) had a goal of a 25 percent recycling rate for food service and packaging PS by 1995.

While technically feasible, food service PS is difficult to recycle due to being contaminated with food. It also experiences transportation challenges due to its light weight and other collection difficulties. Industry found that there was reluctance among organizations, businesses, and consumers to collect food service PS for recycling. As with other resin types, it was difficult for the recycled resin to compete with virgin PS on both a cost and quality basis. The corporations involved with the NPRC invested $85 million between 1989 and 1997 to operate the recycling facilities, yet never achieved profitability. (Source: 23, p. 3)

There is virtually no recycling of food service PS in California. However, since 1990, Michigan-based Dart Container has assisted companies wanting to recycle food service PS by leasing them a densifier for $295 per month and backhauling the material to a recycling facility. Although there were a limited number of California facilities participating, none are currently participating. According to Dart Container representatives, fewer customers were

Exhibit 4. National EPS Postconsumer Recycling Rates and Quantities
(Millions of Pounds)



	90	91	92	93	94	95	96	97	98	99	00	01	02
Recycling Rates (Percent)	1.7	5.9	9.5	10.5	10.2	12.7	10.4	7.4	9.5	9.6	12.1	13.1	13.0

willing to pay for the densifier or allocate the labor necessary to sort and process the material.

Canadian Polystyrene Recycling Association

About the same time that NPRC was starting in the United States, a similar effort was started in Canada for similar reasons. However, the Canadian Polystyrene Recycling Association (CPRA) is still in operation, while the NPRC is not. In an August 2003 interview, CPRA President John Roulston provided an insight into CPRA's operation and why it is successful.

CPRA processes 20–25 tons of material per day, five to six days per week. It receives material primarily from three areas: (1) approximately 20–25 percent of its material comes from the horticultural industry (trays and flats), (2) a significant (undetermined) percentage comes from commercial packaging and graphic industrial signs, and (3) about 5–10 percent comes from the government-run curbside collection program (referred to as the Blue Box), which serves approximately one million households.

CPRA pays materials recovery facilities approximately $50 (U.S. dollars) per ton, F.O.B. CPRA's facility. The manufacturing operation provides approximately 96 percent of revenues, with membership fees providing the remaining four percent. The membership fees roughly cover the cost of the educational outreach program. Although CPRA's operations were subsidized for the first

Holiday EPS Collection Project

The challenges of EPS collection from consumers after Christmas were demonstrated in Long Beach in December 2002. The goals for the one-day event were to increase awareness of plastics recycling and to offer a special event in which EPS material generated over the holidays could be collected and recycled. The Alliance of Foam Packaging Recyclers (AFPR), the City of Long Beach, the American Plastics Council (APC), FP International, Tuscarora Incorporated, and the CIWMB organized the program. AFPR has 10 years experience in facilitating EPS Christmas collection programs, and the City of Long Beach has a long-standing reputation of being successful and innovative with recycling.

After considering a variety of alternatives, it was decided to conduct the EPS collection in conjunction with the city's Christmas tree collection program. This provided an opportunity to leverage a long-standing post-holiday recycling activity (recycling Christmas trees) for consumers. Several different approaches were taken to advertise the program. Advertisements in the local paper for the Christmas tree collection were edited to include information about dropping off EPS at the same locations. Where existing ads could not be edited, new ads were placed next to the Christmas tree announcements. Approximately 72,000 flyers were distributed to area school children to take to their parents and approximately 5,000 paycheck stuffers were provided to City of Long Beach employees. Press releases were issued to local TV, radio, and print media in addition to distribution of flyers at local Circuit City and Wal-Mart stores. Additionally, EPS recycling posters were distributed to schools and city government buildings. Organizers estimate that over 50,000 households were informed of the collection event.

The EPS collection took place at 11 locations on Saturday, December 28, 2002. A total of approximately 200 pounds of EPS was collected from all 11 locations. Costs for the project totaled over $22,000, including promotion/advertising, the trailer to haul the EPS, and other costs. This $110 per pound collection cost is in addition to an estimated 1,200 man hours contributed to the project.

The results were consistent with most other efforts undertaken by the participants in large metropolitan areas. However, the holiday collection program has been successful in smaller cities when heavily promoted by local media and PS producers.
(Source: 24)

If this type of promotion is planned in the future, it would need to have significant consumer interest and cooperation in order to provide a better opportunity for success.

decade, the association has not required a subsidy for plant operations since 2000. It also received tax incentives from the province.

CPRA produces a single product, a 100 percent postconsumer black high-impact PS (HIPS). Approximately half the sales are to the horticultural industry with the balance being used in non-critical application, such as office products. Part of CPRA's success can be attributed to its management style. The corporate culture is more similar to that of a recycling entrepreneur rather than a large corporate bureaucracy. Although governed by a Board of Directors, CPRA's management team is given the authority and responsibility to efficiently run the operation.

Conversion Technology

A new form of plastics recycling that holds significant potential is "feedstock recycling" or "chemical recycling." This process is often referred to as "conversion technology." Conversion technology (CT) refers to the processing of solid waste through non-combustive thermal, chemical, or biological processes, other than composting, to produce products such as electricity, fuels, or chemicals that meet quality standards in the marketplace. CT includes, but is not limited to, catalytic cracking, gasification, and pyrolysis.

Basically, plastic is processed through one of the methods to produce a marketable product, such as fuel or gas. These products can be used to fuel vehicles or power generators as a form of "green," or renewable, energy. Some methods can also produce the original polymer or resin. While CT processes hold significant long-term potential, it is unclear at this time how much PS can be recycled using CT. It is also unclear whether projects can be economically self-sufficient or what kind and/or level of subsidy, if any, may be needed to support the activity. The price of oil is one of the primary factors in considering the economic feasibility of the conversion of plastics.

Generally, curbside programs are not able to generate adequate quantities or quality for use by EPS manufacturers. Contamination issues with PS suggest that conversion of the PS into fuel or other products may be a potential alternative for diverting PS that is not readily recyclable.

CT is considered "cutting-edge" technology, and there are only a few operating facilities in the world. One such facility under construction is the Plastic Energy, LLC facility located at the Kings County Material Recovery Facility. This facility intends to use post-recovered plastics (after recyclable materials have been removed) to produce an ultra-low sulfur diesel fuel. Waste Management, Inc. has already agreed to provide post-recovered plastics and use the resulting diesel in its vehicle fleet. The CIWMB provided a $2 million low-interest equipment loan through its Recycling Market Development Zone loan program for the facility.

Legislation (AB 2770, Matthews, Chapter 740, Statutes of 2002) allocated $1.5 million for the CIWMB, in consultation with other federal and State entities, to prepare a report to the Legislature on new and emerging conversion technologies (CT). The report will include technologies that can process plastics, including PS. This may provide an alternative to the current practice of disposing of plastics in landfills.

Disposal

In 1999, an estimated 300,000 tons of PS was landfilled in California. This amount is relatively small in terms of overall waste generation—only 0.8 percent (by weight) of the total waste landfilled in California. (Source: 25[a], p. 42; 25[b], p. 11; Comment: 25[c]) Even considering volume rather than weight, PS in the waste stream does not appear to pose significant problems related to landfill capacity.

PS disposal is no different than any other material. If users do not recycle their PS, they dispose of it with other solid wastes. EPS is a very bulky material, so a consumer who purchased a new appliance with EPS protective packaging could fill a trash can with foam that week. Another potential PS disposal problem, discussed below, results when fast-food containers (cups, plates, clamshells) either spill over or blow out from trash receptacles. Because the EPS material is so light, it can blow away, becoming litter. This release into the environment is one of the key concerns with food service PS.

The cost of PS disposal can be calculated from typical disposal cost figures, since it will be collected with other solid waste from both commercial and residential sources. Typical solid waste collection costs in California are $100 per ton, including collection and an average tipping fee of $30 per ton. Total disposal costs for PS are estimated at about $30 million per year. (Source: 26) These costs are covered through solid waste fees paid by residential and commercial users, like all other solid wastes. This does not take into consideration the cost of collection and disposal of litter, which can result in a significantly higher cost (see "Environmental and Health Impacts" section below).

Environmental and Health Impacts

The three key areas discussed in this section are life-cycle impacts, health impacts, and environmental impacts. When compared to many alternatives, the lifecycle impacts of PS products that are properly disposed or recycled are positive and should be recognized. The health impacts of PS have been controversial at times but appear to be minimal. The primary environmental impact of PS relates to litter and improperly disposed PS, particularly in the marine environment. This is the key issue of concern for PS, and it should be addressed in future industry deliberations and policy-making. Each of these areas is summarized briefly, below.

Life-Cycle Impacts

Life-cycle impacts are often calculated by performing a life-cycle assessment/analysis (LCA). An LCA, sometimes referred to as "cradle to grave" analysis, determines the environmental impacts of products, processes or services, through production, usage, and final disposal. In general, PS protective packaging is light, strong, and effective in protecting a wide range of products. It reduces breakage and the total weight of waste disposed as compared to other alternatives. PS containers used to ship produce and fish provide insulation, and they have demonstrated the ability to keep food fresher than typical wood or cardboard containers.

One study found that EPS boxes were more effective than corrugated cardboard boxes for shipping fresh fruits and vegetables. The benefits of EPS included controlling acidity, maintaining solid content, reducing pigment loss, reducing vitamin loss, and extending freshness. (Source: 27, pp. 45–46)

An LCA comparing foam PS and bleached paperboard plates, cups, and hinged containers found that the PS containers require 30 percent less energy than the paper containers. PS containers contributed 29 percent more to solid waste volume, and they have 46 percent lower atmospheric emissions. They contributed 42 percent less waterborne wastes. (Source: 28, pp. 4-16, 4-27)

Martin B. Hocking of the University of Victoria, British Columbia, Department of Chemistry, observed similar findings. With respect to overall energy costs during fabrication and use, reusable cups have energy consumption similar to single-use PS foam cups after 500 uses. (Source: 29, p. 889) Polystyrene cups were found to have the lowest energy consumption. Hocking also notes that paper cups result in additional chemical use and emissions as compared to PS cups. (Source: 30, pp. 28–29)

After an extensive environmental impact assessment, the Danish Environmental Protection Agency determined the burdens various packaging materials place on the environment. Packaging materials were reviewed in terms of their main environmental pressure in life-cycle phases. The agency ranked various materials from highest to least impact in various categories. In the categories of energy consumption, greenhouse gas effect, and total environmental effect, EPS's environmental impacts were the second highest, behind aluminum. Materials studied include: aluminum, steel, polyvinyl chloride, EPS, PS, polyethylene terephthalate (PET), high-density polyethylene (HDPE), low-density polyethylene (LDPE), polypropylene, glass, and cardboard. (Source: 31)

These life-cycle studies identify trade-offs of various products systems but may not reflect the environmental and societal costs associated with illegal disposal (litter). In many cases, PS is superior in a variety of ways to several alternative products. Provided PS is used appropriately and reused, recycled, or disposed of properly, it appears to have net positive impacts. High costs arise when PS products, like any other products, are disposed of improperly: either through littering or by being accidentally knocked out of, or blown out of,

overflowing trash receptacles. These problems are discussed below.

Health Impacts

The most commonly raised health concern related to PS is the migration of the monomer (styrene) used in the production of PS from PS food containers into food and drinks. There are many reports on the issue that support a study conducted by the Harvard Center for Risk Analysis that found, "Styrene's carcinogenicity in humans cannot be ruled out at this time. However, styrene exposure levels among the general population and among most workers are for the most part very low." The study also concluded, "... that occupational exposure to styrene does have a subtle effect on color vision." (Source: 32, p. 3) Additionally, the California Office of Environmental Health Hazard Assessment does not include styrene on the list of chemicals known to cause cancer or reproductive toxicity. (Source: 33)

Environmental Impacts

An often-mentioned environmental impact from PS results from the improper disposal (primarily littering of PS containers.) The California Department of Transportation conducted a litter management pilot study during 1998–2000. That study found that PS foam (referred to in the study as "Styrofoam") represented 15 percent of the total volume of litter recovered from storm drains. Other significant items include moldable plastic (16 percent), plastic film (12 percent), and paper (14 percent). This does not include larger items that did not enter the storm drain system. (Source: 34, p. 12)

PS is also a significant component in coastal litter collection programs and monitoring studies. In the 1999 U.S. Coastal Cleanup Day (a one-day nationwide cleanup event held each fall), foamed PS pieces were the fourth-largest amount of all materials collected. This represents more than 5 percent of the total number of pieces collected. (Source: 35) Only cigarette butts, plastic pieces, and plastic food bags and wrappers were collected in amounts higher than foam pieces. As shown in Table 7, the nine categories of foam—including fast-food containers, cups, egg cartons, and plates—accounted for 11 percent of the total number of pieces collected, a total of 461,124 pieces of foam products. (Source: 36)

Table 7: U.S. Coastal Cleanup Results—Foam, 1999

Foamed Plastic	Pieces	Foam Percent	Total Percent
Buoys	13,609	3.0%	0.3%
Cups	84,652	18.4%	2.0%
Egg cartons	3,503	0.8%	0.1%
Fast-food containers	26,880	5.8%	0.6%
Meat trays	8,688	1.9%	0.2%
Packaging materials	48,329	10.5%	1.2%
Foamed PS pieces	214,960	46.6%	5.1%
Plates	17,997	3.9%	0.4%
Other foamed plastic	42,506	9.2%	1.0%
Total Foamed Plastic	**461,124**	**100.0%**	**11.0%**
Total Pieces	**4,191,169**		

California accounted for 20 percent, by weight, of the total tonnage of material collected in the U.S. Coastal Cleanup Day in 1999. A study conducted from August to September 1998 quantified Orange County, California, beach debris from 43 random sites from Seal Beach to San Clemente. (Source: 37) The most abundant item was pre-production plastic pellets, followed by foamed plastic, shown in Table 8. (Source: 38, p. 116)

Even studies measuring plastics found up to 5 kilometers (km) off the Southern California coast have found high levels of small plastic pieces from land-based sources, especially after storm events. (Source: 39, p. 1037) These small plastic pieces, similar in size to plankton and more abundant than plankton, represent a particular risk to filter feeders.

PS in the marine environment results in significant problems for wildlife. Worldwide, people have reported entanglement for at least 143 marine species, including almost all of the world's sea turtles. At least 162 marine species, including most sea birds, have been reported to have eaten plastics and other litter. (Source: 40)

PS is of particular concern because it is light, it floats, and it is highly visible. In addition, PS foam breaks into small pieces, increasing the chance of ingestion by wildlife and increasing the difficulty and cost of collection. Ingestion of polystyrene pieces, which look like food to many species, results in reduced appetite, reduced nutrient adsorption, and starvation for wildlife.

Marine debris also creates problems for fishermen and recreational boaters, particularly when plastics get into boat engines and cause damage.

Scientists have identified new areas of concern related to floatable plastic litter. One problem is the adsorption of toxic substances in sea water into plastic resin pellets. Another is the transportation of invasive species such as barnacles, mollusks, sea worms, and corals that travel on plastic litter "boats" to islands and other sensitive ecosystems. (Source: 41)

Finally, PS litter has negative impacts on tourism in California. The state has more than 1,000 miles of coastline, so maintaining clean beaches and coastal areas is important to its tourism industry.

The nature of the EPS and PS use—for disposable single-use consumption, often at fast-food restaurants—may increase the likelihood that the material will be illegally discarded by individuals. Also, because of their light weight, even properly disposed containers in full trash receptacles may end up blowing away and becoming litter.

EPS and PS are not the only materials entering storm drains as trash, but are highly visible and have attracted unwanted attention. EPS and PS are some of the most commonly found items in storm drains in Los Angeles County. (Source: 42) Cities in this area began focusing efforts to eliminate trash in storm drains during the next 10 years as part of the TMDL requirements. Each city in Los Angeles County recently agreed to jointly pay the consultant costs to determine the best option to comply with the TMDL requirements. Initial indications are that the cost of TMDL compliance is estimated at $168 million or more.

Trash from Long Beach and Signal Hill storm drains accumulates in a particular location during the summer. An estimated one-fifth to one-third of this trash was estimated to be white PS cups and clamshell containers (followed by plastic water bottles and plastic bags). (Source: 43)

Litter is a pervasive problem involving diffuse sources and human behavior with no easy solutions. Specific materials such as EPS and PS do not cause the litter problem; rather, it is caused by human behavior. Whatever the cause, the high costs of litter cleanup and collection are a significant economic externality of plastics. This is especially true of EPS, which has a tendency to break into smaller pieces making cleanup more difficult. The problem should be addressed in public policy and/or industry-led initiatives.

Litter is pervasive and different methods are used to collect it. It would be impractical to assign an "average" cost to clean up litter in all areas. However, there have been studies documenting the cost to clean up litter in different areas and situations.

A Seattle Times article estimated the cost of collecting litter at $1.11 per pound. (Source: 44) In Orange County, the cost of collecting litter on 6 miles of beach for one summer is $350,000.

Table 8: Estimated Total Abundance and Weight of Trash on Orange County Beaches

August to September, 1999

Debris Type	Number	Weight (pounds)
1. Pre-production plastic pellets	105,161,101	4,780
2. Foamed plastics	742,296	1,526
3. Hard plastics	642,020	7,910
4. Cigarette butts	139,447	344
5. Paper	67,582	870
6. Wood	27,919	4,554
7. Metal	23,500	3,015
8. Glass	22,195	1,944
9. Rubber	10,742	817
10. Pet and bird droppings	9,388	17
11. Cloth	5,949	1,432
12. Other	10,363	401

(Source: 45) The total litter collection costs for cleaning up 19 beaches along 31 miles in Los Angeles County was more than $4 million in 1994.

The City of Long Beach and Los Angeles County currently spend about $1 million a year on litter collection in Long Beach Harbor, at the mouth of the Los Angeles River. (Source: 46) Using a figure of about 3,000 tons collected from 1998 to 1999, the collection cost is more than $300 per ton. (Source: 47, p. 16) The Los Angeles County Department of Public Works also contracts out the cleaning of more than 751,000 catch basins for a total cost of more than $1 million per year. (Source: 47, p. 35)

While aggressively enforcing State and local litter laws is a good first step, this effort alone is unlikely to achieve the Trash TMDL mandated zero-tolerance levels in the Los Angeles area.

Recommendations

The CIWMB does not believe that a separate PS initiative is warranted. However, the CIWMB does recommend the following to assist in minimizing the environmental impacts of illegally discarded PS and exploration of source reduction alternatives:

1 The State should increase litter education efforts through more effective coordination between all State entities that spend money on anti-litter education and/or cleanup. This effort could be led by the CIWMB and include non-profits such as Keep California Beautiful, and other involved parties (local government, environmentalists, food service packaging producers, fast-food restaurants, and others). The effort should leverage resources and deliver a consistent message whenever possible.

2 The State should conduct a statewide litter study to identify the types and respective amounts (volume and weight) of litter and to quantify the environmental and societal impacts of litter. The study should also review the effectiveness of various approaches to reduce litter (human behavior, product stewardship, and best management practices) and other areas, as appropriate.

3 The Legislature should consider making litter a civil offense, to facilitate issuing litter tickets. Legislation could authorize financial incentives, perhaps from proceeds of violation tickets, to individuals and/or organizations that identify violators with appropriate proof (such as videotape or witness testimony) that results in tickets being issued.

4 The State should perform appropriate studies and testing (including demonstration projects) to determine the effectiveness of compostable and biodegradable plastics as alternatives to nondegradable polystyrene.

5 The State should continue to work with manufacturers and other stakeholders to promote additional manufacturer responsibility and product stewardship of polystyrene.

Source References and Comments

1. Society of the Plastics Industry, "California Leads Nation in Plastics Industry Employment," news release, Washington, D.C., April 10, 2003.

2. Alliance of Foam Packaging Recyclers, Crofton, Md., "Polystyrene Recycling Report," presentation to California Integrated Waste Management Board staff, July 25, 2001.

3. The Federal Clean Water Act (Title 33, Chapter 26, U.S. Code) requires states to establish a priority ranking for impaired waters and to develop and implement total maximum daily loads (TMDL). A TMDL specifies the maximum amount of pollutant that a water body can receive and still meet water quality standards. A consent decree between the U.S. Environmental Protection Agency, the Santa Monica BayKeeper, and Heal the Bay, Inc., represented by the Natural Resources Defense Council (NRDC), prescribed schedules for TMDLs, requiring the trash TMDL to be approved before March 2002.

4. California Integrated Waste Management Board, Diversion Study Guide, Appendix I, Conversion Factors: Glass, Plastic, Paper, and Cardboard <www.ciwmb.ca.gov/LGLibrary/DSG/Irecycl.htm>.

5. California Integrated Waste Management Board, Plastics White Paper Project, <www.ciwmb.ca.gov/Plastic/WhitePaper02/>.

6. American Plastics Council, *The Resin Review: The Annual Statistical Report of the U.S. Plastics Industry—2002 Edition,* Arlington, Va., August 2002.

7. Alliance of Foam Packaging Recyclers, *Final Report—1998 Resin Use Study*, prepared by R.W. Beck, Crofton, Md., June 1999.

8. American Plastics Council, *The Resin Review: The Annual Statistical Report of the U.S. Plastics Industry—2002 Edition*, Arlington, Va., August 2002.

9. Alliance of Foam Packaging Recyclers, Crofton, Md., "Polystyrene Recycling Report," presentation to California Integrated Waste Management Board staff, July 25, 2001.

10. Alliance of Foam Packaging Recyclers, "Recycled Content in Expandable Polystyrene Foam Protective Packaging," *Technical Bulletin*, Crofton, Md., Fall 2001.

11. Alliance of Foam Packaging Recyclers, "Profoam International Offers Recycling Solutions," *Molding the Future*, Crofton, Md., Winter 2000.

12. Alliance of Foam Packaging Recyclers, "Properties, Performance and Design Fundamentals of Expanded Polystyrene Packaging," *Technical Bulletin*, Crofton, Md., January 2000.

13. Ken Adams, Rapac, Inc., Oakland, Tenn., e-mail to Board Staff, February 2, 2004.

14. Karen Joffe, Plastic Loose Fill Council, Oakland, Calif., Letter to California Integrated Waste Management Board, the Department of Conservation, and NewPoint Group, July 8, 2002.

15. Alliance of Foam Packaging Recyclers, Crofton, Md., "Polystyrene Recycling Report," slide presentation to California Integrated Waste Management Board Staff, July 25, 2001.

16. (a) American Plastics Council, *2000 Post-Consumer Polystyrene Recycling Statistics Summary*, Arlington, Va., October 2001. (b) Polystyrene Packaging Council, *Waste Management and Reduction Trends in the Polystyrene Industry, 1974–1997*, prepared by Franklin Associates, Ltd., Arlington, Va.,

August 1999. (c) Alliance of Foam Packaging Recyclers, *2002 EPS Recycling Rate Report*, Crofton, Md.

17. California figures are calculated from national totals using population. The 2000 recycling rates are applied to 2001 production estimates.

18. (a) Raymond J. Ehrlich, *The Economic Realities of Recycling,* Polystyrene Packaging Council, Arlington, Va., <www.polystyrene.org/environment/econ.html >; (b) Virginia Lyle, FP International, Redwood City, Calif., personal communication with the contractor, August 26, 2002.

19. Alliance of Foam Packaging Recyclers, "Expanded Polystyrene—Expanded Polystyrene (EPS) Packaging Collection Recycling Collection Sites" <www.epspackaging.org/info.html> August 24, 2002.

20. Virginia Lyle, Manager of Environmental Affairs, FP International, Redwood City, Calif., e-mail communication with California Integrated Waste Management Board Staff, December 16, 2003.

21. Alliance of Foam Packaging Recyclers, Crofton, Md., "Polystyrene Recycling Report," presentation to California Integrated Waste Management Board staff, July 25, 2001.

22. Tim Shestek, Director of State & Local Public Affairs for American Chemistry Council, Arlington, Va., Michael Levy, Executive Director of Polystyrene Packaging Council, "Comments to the California Integrated Waste Management Board's Draft Report—*Use and Disposal of Polystyrene in California, A Report to the California Legislature"* [October 2003 version of draft report], November 20, 2003.

23. "By the Numbers," *Plastics Recycling Update*, Vol. 14, No. 1, January 2001, pp. 2–3.

24. Alliance of Foam Packaging Recyclers, "Expanded Polystyrene (EPS) Christmas Collection Demonstration Program—December 2002," Crofton, Md., n.d.

25. (a) U.S. Environmental Protection Agency, *Municipal Solid Waste in the United States—1999*, Washington D.C., 2000, prepared by Franklin Associates, Ltd.; (b) California Integrated Waste Management Board, *Statewide Waste Characterization Study: Results and Final Report*, pub. #340-00-009, Sacramento, Calif., December 1999, prepared by Cascadia Consulting Group. (c) California's annual polystyrene disposal of 300,000 tons was calculated by multiplying the state's 2000 total waste stream tonnage (36,954,946 tons), obtained from source 25b, by the percentage of the national waste stream composed by polystyrene, 0.8 percent, obtained from source 25a.

26. CIWMB average tipping fee statistics and NewPoint Group files.

27. Hyung Woo Park, *Effects of EPS Packaging Boxes on the Freshness Extension of Agricultural Produce*, Korea Food Research Institute, Sungnam City, Korea, April 17, 1997.

28. The Council for Solid Waste Solutions (now American Plastics Council), *Resource and Environmental Profile Analysis of Foam Polystyrene and Bleached Paperboard Containers*, Prairie Village, Kans., June 1990, prepared by Franklin Associates, Ltd.

29. Martin B.Hocking, "Reusable and Disposable Cups: An Energy-Based Evaluation," *Environmental Management*, Vol. 18, No. 6, pp. 889–99.

30. Martin B. Hocking, "Is Paper Better than Plastic?" *Consumers' Research*, October 1991, pp. 28–50.

31. "Paper And Glass Packaging Impacts Least On The Environment" November 19, 2003, <www.miljoestyrelsen.dk/homepage/>.

32. Joshua Cohen, Ph.D., "Risk in Perspective: Evaluating the Risk to Workers and the Public from Styrene Exposure," *Harvard Center for Risk Analysis,* Vol. 10, Issue 3, May 2002, pp. 1–6.

33. Office of Environmental Health Hazard Assessment, "Chemicals Known to the State to Cause Cancer or Reproductive Toxicity—November 14, 2003" <www.oehha.ca.gov/prop65/CRNR_notices /list_changes/pdf/111403lsta.pdf>, December 12, 2003.

34. Lippner, Gary, J. Johnston, S. Combs, K. Walter, D. Marx, *Storm Water Program: Results of the Caltrans Litter Management Pilot Study*, California State University Sacramento, Office of Water Programs, 2001.

35. "Center for Marine Conservation, International Coastal Cleanup" <www.cmc-ocean.org/cleanupbro/>.

36. Ibid.

37. Moore, Shelly L., D. Gregorio, M. Carreon, S.B. Weisberg and M. Leecaster. March 2001. "Composition and distribution of beach debris in Orange County, California," *Marine Pollution Bulletin* Vol. 42, Issue 3, pp. 241–245. Online version via Southern California Coastal Water Research Project Web site (links to follow: Publications, Annual Reports, Years 1990-2002, 1999-2000 Annual Report) available at <ftp://ftp.sccwrp.org/pub/download/PDFs/1999ANNUALREPORT/09_ar10.pdf >

38. Ibid., online version.

39. C.J. Moore, S.L. Moore, S.B. Weisberg, G.L. Lattin, and A.F. Zellers. "A Comparison of Neustonic Plastic and Zooplankton Abundance in Southern California Coastal Waters," *Marine Pollution Bulletin*, Vol. 44, No. 5, May 21, 2002, pp. 1035–1038.

40. United Nations Environment Program Global Program of Action, "Effects of Marine Life on Wildlife," *Global Marine Litter Information Gateway*, <http://marine-litter.gpa.unep.org/facts/effects-wildlife.htm#entanglement>.

41. Patricia Reaney, "Marine Organisms Ride Plastic, Threaten Ecosystems," Reuters News Service, April 25, 2002. <www.enn.com/news/wire-stories/2002/04/04252002/reu_47028.asp>.

42. City of Los Angeles Department of Public Works, "Los Angeles Stormwater Trash Removal Project," California Integrated Waste Management Board grant application, November 28, 2001.

43. Ken Farfsing, City Manager of City of Signal Hill, Calif., personal communication with the contractor, August 26, 2002.

44. Don Duncan, "Litter's Bugging Washington," *Seattle Times*, August 13, 1989, p. A-1. Cited in "Plastic Trash and Wildlife—Activity E.k," Tennessee Solid Waste Education Project, <http://eerc.ra.utk.edu/tnswep/activitiesPDFs/ek.pdf>.

45. United Nations Environment Program Global Program of Action, "Effects of Marine Litter on Economy and People," *Global Marine Litter Information Gateway,* <http://marine-litter.gpa.unep.org/facts/effects-people-economy.htm>.

46. Ken Farfsing, City Manager of the City of Signal Hill, Calif., personal communication with contractor, August 26, 2002.

47. Los Angeles Regional Water Quality Control Board, "Trash Total Maximum Daily Loads for the Los Angeles River Watershed," Los Angeles, September 19, 2001.

Attachment B:

"An Overview of Expanded Polystyrene Food Containers in Los Angeles County", Staff Report to the Los Angeles County Board of Supervisors (2008)

An Overview of Expanded Polystyrene Food Containers in Los Angeles County

PART ONE

Banning Expanded Polystyrene Food Containers at County Operations

A STAFF REPORT TO THE LOS ANGELES COUNTY BOARD OF SUPERVISORS

"To Enrich Lives Through Effective and Caring Service"

COUNTY OF LOS ANGELES

LOS ANGELES COUNTY BOARD OF SUPERVISORS

Yvonne B. Burke
Board Chair

Gloria Molina
Supervisorial District 1

Zev Yaroslavsky
Supervisorial District 3

Don Knabe
Supervisorial District 4

Michael D. Antonovich
Supervisorial District 5

County's Working Group

All Supervisorial Districts
Chief Executive Office
Department of Public Works
Internal Services Department
Department of Public Health
County Counsel
County Sanitation Districts of Los Angeles County

For additional copies of this publication, contact:

Los Angeles County Department of Public Works
Environmental Programs Division
900 South Fremont Avenue
Alhambra, CA 91803

www.888CleanLA.com
1(888)CLEAN LA
October 2008

Printed on recycled paper containing a minimum of 30 percent post-consumer content

Preface

Report Mandate

On May 22, 2007, the Los Angeles County Board of Supervisors approved the following actions related to the use of expanded polystyrene food containers:

1. Instruct the Director of Public Works, in consultation with the Director of Internal Services and County Counsel, to investigate the impact of prohibiting the purchase and use of expanded polystyrene food containers at all County-owned facilities, County offices, County-managed concessions, County-permitted events, and County-sponsored events, and report back with recommendations, including:
   a) A recommendation on the earliest practical effective date for such prohibition;
   b) A recommendation on whether there should be a case-by-case temporary waiver as a result of contractual obligations or if there are no other viable alternatives for specific products; and
   c) A description of the proposed outreach program to provide information and assistance in identifying environmentally friendly alternatives to expanded polystyrene food containers;
2. Instruct the Director of Public Works, in consultation with County Counsel, to investigate and report back in six months on the feasibility of prohibiting the use of expanded polystyrene food containers at all food service establishments and retail stores in the unincorporated County areas, including recommended changes to the County Code;
3. Instruct the County's Legislative Advocates in Sacramento to pursue passage of AB 820 (Karnette) which seeks to ban the selling, possession, or distribution of expanded polystyrene food containers at State facilities, including universities and colleges;
4. Instruct the Chief Executive Office to update the County's policies and proposals for the 2007-2008 State Legislative Session to pursue legislation which promotes market development and manufacturer stewardship of products made of alternatives to polystyrene; and
5. Instruct the Director of Public Works to enhance the educational and public outreach campaigns to encourage Los Angeles County residents, public agencies, school districts and Cities on environmentally-friendly alternatives to polystyrene.

This Part I report highlights staff findings in response to Item 1 above: prohibiting the purchase and use of expanded polystyrene food containers at all County operated facilities. As reported to the Board of Supervisors in 2007, the timing and implementation of Part II (Item 2 above) will rely upon the findings of this report and implementation of its recommendations, if approved. Items 3, 4 and 5 have been completed.

Table of Contents

EXECUTIVE SUMMARY 1

BACKGROUND 1
Need to Reduce Expanded Polystyrene Litter 1
KEY FINDINGS 2

CHAPTER 1 INTRODUCTION AND METHODOLOGY 5

INTRODUCTION 5
Description of Motion 5
Current Disposal Conditions 6
METHODOLOGY USED 6

CHAPTER 2 OVERVIEW OF EXPANDED POLYSTYRENE 7

OVERVIEW 7
HISTORY OF EXPANDED POLYSTYRENE (EPS) 7
HOW IS EPS MANUFACTURED? 8
HOW IS EPS RECYCLED? 8
EPS USAGE INFORMATION 9
DO COUNTY DEPARTMENTS USE EPS FOOD CONTAINERS? 10
HOW IS EPS MANAGED IN LOS ANGELES COUNTY JURISDICTIONS? 12
LEGISLATIVE INFORMATION 12

CHAPTER 3 LITTER AND ENVIRONMENTAL IMPACT 14

LITTER IMPACT 14
Litter Impact on Local Waterways and Beaches 16
FINANCIAL IMPACT 19
County of Los Angeles' Litter Cleanup/Prevention Costs 19
Zero Trash TMDL 20
ECOSYSTEM IMPACTS FROM LITTERED EXPANDED POLYSTYRENE FOOD CONTAINERS 21
ANTI-LITTERING LAW 23

CHAPTER 4 ALTERNATIVE PRODUCTS ASSESSMENT 24

LIST OF CURRENT ALTERNATIVE PRODUCTS 24
ASSESSMENT OF RELATIVE IMPACTS 25
PRODUCT TYPES 26
Reusable Products 27
Compostable/Biodegradable Products 27
Recyclable Products 28
ISSUES IMPACTING ALTERNATIVES ASSESSMENT 28
Sustainability 28
Single-Use Disposal 28
Biodegradability/Composting 29
Recycling 29

CHAPTER 5 MUNICIPAL BANS – CASE STUDIES 30

CITY OF ALISO VIEJO 30
CITY OF BERKELEY 30
CITY OF CALABASAS 30
CITY OF CAPITOLA 30
CITY OF EMERYVILLE 31
CITY OF HUNTINGTON BEACH 31

CITY OF MALIBU 31
CITY OF OAKLAND 31
CITY OF PORTLAND, OREGON 31
CITY OF RANCHO CUCAMONGA 32
CITY OF SAN CLEMENTE 32
CITY/COUNTY OF SAN FRANCISCO 32
CITY OF SANTA MONICA 32
COUNTY OF VENTURA 32

CHAPTER 6 FINDINGS AND RECOMMENDATIONS 33

KEY FINDINGS 33

APPENDICES

A) GUIDANCE MATRIX

B) LIST OF VENDORS

C) ISD PURCHASING POLICY

D) COUNTY DEPARTMENT SURVEY RESULTS

E) PLASTIC RECYCLING CHART

F) SAMPLE BROCHURES

List of Figures

FIGURE 1 – EXPANDED POLYSTYRENE CUPS AND OTHER PLASTIC TRASH CAPTURED IN THE LOS ANGELES RIVER DEBRIS NET 2
FIGURE 2 – HIERARCHY OF PREFERRED ALTERNATIVES FOR PROCUREMENT 4
FIGURE 3 – TYPICAL VIEW OF SOURCE-SEPARATED RECYCLABLES TRAVELING ALONG A SORTING CONVEYOR BELT AT A RECYCLING FACILITY 9
FIGURE 4 – EPS FOOD CONTAINERS CAUGHT IN FENCE 15
FIGURE 5 – SANITIZER MACHINE CLEANING VENICE BEACH 18
FIGURE 6 – EPS FRAGMENT NOT COLLECTED BY THE SANITIZER BEACH CLEANING MACHINE AT VENICE BEACH 18
FIGURE 7 - END-OF-PIPE NET AT HAMILTON BOWL 19
FIGURE 8 – EPS CAUGHT IN-STREAM FLOATING NET 20
FIGURE 9 – POLYSTYRENE IN THE RIVER 21
FIGURE 10 – EGRET LOOKS FOR FOOD AMONG EPS AND OTHER TRASH 22
FIGURE 11 – HIERARCHY OF PREFERRED ALTERNATIVES FOR PROCUREMENT 36

List of Tables

TABLE 1 – EXPANDED POLYSTYRENE USAGE STATISTICS 9
TABLE 2 -- USE OF EPS FOOD CONTAINERS BY COUNTY DEPARTMENT 10
TABLE 3 -- SUMMARY OF LITTER STUDIES 16
TABLE 4 – TYPES OF ALTERNATIVES TO EPS 25
TABLE 5 – PRODUCT IMPACT MATRIX 26

EXECUTIVE SUMMARY

Background

This report is in response to a motion by the Los Angeles County Board of Supervisors to investigate the impact of prohibiting the purchase and use of expanded polystyrene (EPS) food containers at all County-owned facilities, County offices, County-managed concessions, and County-permitted and sponsored events. This report summarizes the impacts of EPS food containers and the options available to transition County operations to more environmentally friendly alternatives. The Board has elected to make County offices the first to act in order to demonstrate leadership on this critical issue.

Need to Reduce Expanded Polystyrene Litter

The properties of EPS make it an inexpensive and effective material for product packaging and food/beverage containers. As a result, 56,000 tons of EPS products (primarily product packaging and food containers), equivalent in volume to over eight Empire State Buildings, enter the marketplace in California annually, with the overwhelming majority either disposed or littered.[1] Once littered, EPS food containers are easily blown into our storm drain system. Their lightweight characteristic enables them to be readily carried downstream into our waterways, negatively impacting the environment and wildlife. They also end up entangled in brush, tossed along freeways, and washed up on our beaches. Because EPS crumbles and is often difficult to collect, it is a greater eyesore and nuisance than other littered materials. This littering also impacts recreational areas and the quality of life for residents in Los Angeles County.

Public agencies collectively spend tens of millions of dollars annually on litter prevention, cleanup, and enforcement activities. The litter collected includes EPS food containers that are most often white and highly buoyant. EPS containers are often seen floating in gutters, rivers, and creeks following rain events, clearly standing out among other debris. Several litter studies have found EPS to make up the majority of particles in the total litter stream.[2] A 1998 study in Orange County, California, quantified the composition of beach debris and found that foamed plastics comprise 43 percent of materials collected.[3] The cost to local governments is expected to dramatically rise over the next few years due to compliance with requirements under the Federal Clean Water Act. Currently, the County of Los Angeles Department of Public Works (DPW) and the

---

[1] "Use and Disposal of Polystyrene in California," California Integrated Waste Management Board 2004, http://www.ciwmb.ca.gov/Publications/Plastics/43204003.doc

[2] Working Our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California - C.J. Moore, G.L. Lattin, A.F. Zellers, Algalita Marine Research Foundation http://conference.plasticdebris.org/whitepapers/CJ_Moore_Working_Our_Way_Upstream.doc

[3] Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg and M.K. Leecaster. – 2001. Composition and distribution of beach debris in Orange County, California. Mar. Pollut. Bull., 42(3): 241-245., The percentage is calculated outside of pre-production pellets, which do not originate from consumer or residential sources.

Flood Control District (FCD) spend approximately $18 million per year on clean-up activities such as street sweeping, catch basin cleanouts, cleanup programs, and litter prevention and education efforts.

Figure 1 – Expanded Polystyrene Cups And Other Plastic Trash Captured In The Los Angeles River Debris Net

Key Findings

Findings in the report are based on two components, the first involving research findings related to environmental factors and the second involving findings based on questionnaire responses received from County departments and agencies. (Appendix D)

Findings based on environmental factors:

- Reducing the use of EPS food containers would result in a benefit to the environment by reducing litter, and in turn, reducing the negative impact on the marine environment and other wildlife. This reduced litter would also lead to a decrease in cleanup costs.
- Replacing EPS products with reusable and durable goods, where applicable, would have the highest positive impact on the environment.

- Developing a policy restricting the use of EPS products and promoting environmentally friendly alternatives would boost other environmental initiatives and raise environmental awareness.

Findings based on County questionnaire responses:

- Prohibiting the purchase and use of EPS food containers at all County-owned facilities, County offices, County-managed concessions, County-permitted and County-sponsored events would be feasible to a great extent since use of EPS by County departments is relatively moderate and several County departments already use alternative products to some extent.
- In comparison to EPS food containers, comparable alternative products may be significantly more expensive to purchase, depending on the nature of the material used, manufacturing process, and the durability of the product. However due to the diversity of readily available alternatives, some of which are comparable in cost to EPS, the vast majority of County Departments can comply with this restriction with little or no impact on their overall budgets, of which food container purchases are only a small component. For other Departments where health, safety and/or security may require a specific type of alternative product in lieu of EPS food containers, the transition to an alternate product may not be feasible for the foreseeable future based on the significant cost involved.
- Utilizing alternative products is a viable option for departments and agencies provided that additional funding is available. It is expected that Departments will be able to make the necessary adjustment in future year budgets. If this is not possible, Departments will need to apply for a waiver.

Recommendation for Consideration by the Board of Supervisors:

Since EPS food containers contribute disproportionately to the litter and environmental problems within the County of Los Angeles, the County working group recommends phasing out the purchase and use of EPS food containers and encouraging the use of environmentally preferable alternatives within all County operations. The following Board action would facilitate implementation of this recommendation:

Adopt a restriction on the purchase and use of all EPS food containers, beginning July 1, 2009, at County-owned facilities, County offices, County-managed concessions, County-permitted events, and County-sponsored events.

Further, authorize the County's Energy and Environmental Team (Team) to grant a waiver under the following circumstances:

- Health and/or safety operational issues are demonstrated;
- Existing contract requirements stipulate the purchase of EPS products and the contract cannot be amended; and/or
- A County facility incorporates full containment and collection of all EPS food containers generated on site, for the purposes of recycling those containers.

Note: County agencies requiring a waiver must submit a request to the Team specifying the reason(s) a temporary waiver is needed. The Team, in consultation with ISD and Public Works, will make a determination regarding requests on a case by case basis.

In consultation with ISD and Public Works, the Team will provide semi-annual progress reports for a three-year period describing the progress and efforts to phase-out the use of EPS food containers at County operations, including a summary of approved waivers. The Team will also notify Departments of the new policy and provide training on environmentally-friendly alternatives to EPS food containers.

ISD will update the existing Countywide Purchasing Policy for the Purchase of Environmentally Preferable (Green) Products, Policy No. P-1050 (Appendix C), to include an EPS food and beverage container component with specific emphasis on the following hierarchy for procurement of alternative products, as shown in Figure 2 below:

a. Reusable and durable goods
b. Biodegradable single-use products, including paper-based single-use products with no petroleum coating
c. Recyclable single-use products
d. Other non-EPS products
e. EPS products, for those cases where a waiver is approved

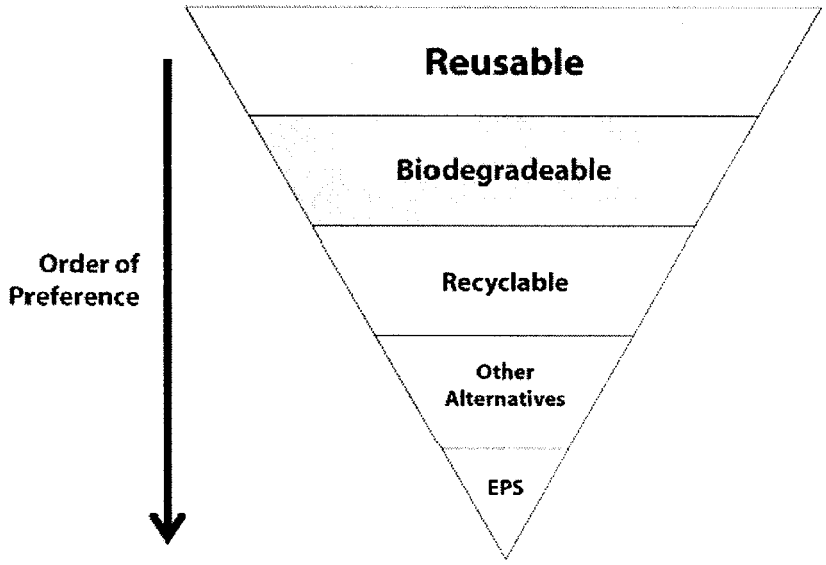


Figure 2 – Hierarchy of Preferred Alternatives for Procurement

In consultation with ISD and DPW, the CEO will retain a consultant to initiate product alternative and guideline study for County purchase agreements for vendors who provide alternative products based on the hierarchy cited in Figure 2 above. The consultant will then develop an EPS training program and train County departments.

CHAPTER 1

INTRODUCTION AND METHODOLOGY

Introduction

On May 22, 2007, the Los Angeles County Board of Supervisors approved the following actions related to the use of expanded polystyrene food containers:

1. Instruct the Director of Public Works, in consultation with the Director of Internal Services and County Counsel, to investigate the impact of prohibiting the purchase and use of expanded polystyrene food containers at all County-owned facilities, County offices, County-managed concessions, County-permitted events, and County-sponsored events, and report back with recommendations, including:
    a. A recommendation on the earliest practical effective date for such prohibition;
    b. A recommendation on whether there should be a case-by-case temporary waiver as a result of contractual obligations or if there are no other viable alternatives for specific products; and
    c. A description of the proposed outreach program to provide information and assistance in identifying environmentally friendly alternatives to expanded polystyrene food containers;
2. Instruct the Director of Public Works, in consultation with County Counsel, to investigate and report back in six months on the feasibility of prohibiting the use of expanded polystyrene food containers at all food service establishments and retail stores in the Unincorporated County Areas, including recommended changes to the County Code;
3. Instruct the County's Legislative Advocates in Sacramento to pursue passage of AB 820 (Karnette) which seeks to ban the selling, possession, or distribution of expanded polystyrene food containers at State facilities, including universities and colleges;
4. Instruct the Chief Administrative Officer to update the County's policies and proposals for the 2007-2008 State Legislative Session to pursue legislation which promotes market development and manufacturer stewardship of products made of alternatives to polystyrene; and
5. Instruct the Director of Public Works to enhance the educational and public outreach campaign to encourage Los Angeles County residents, public agencies, school districts and Cities on environmentally-friendly alternatives to polystyrene.

This Part 1 report highlights staff findings in response to Item 1 above. The timing and implementation of Part II (Item 2 above) will rely upon the findings of this report and implementation of its recommendations, as reported to the Board of Supervisors in 2007. Items 3, 4, and 5 have been completed.

Current Disposal Conditions

Los Angeles County has the most extensive and complex solid waste system in the nation. It covers an area of approximately 4,084 square miles and encompasses 88 cities and 140 unincorporated communities.[4] One in three Californian's live in Los Angeles County, which has a population of 10.2 million people. Los Angeles County is the most populous county in the nation, having a larger population than 42 states and 162 countries.[5] The County's population is expected to increase to approximately 11 million people by 2020.[6] If it were a country, Los Angeles County would rank 17th in the world in terms of Gross Domestic Product.[7] This vigorous population growth, coupled with comparable increases in economic activity, will have a major impact on the solid waste management infrastructure in Los Angeles County.

In 1989, the California Legislature passed the California Integrated Waste Management Act (Assembly Bill 939). Assembly Bill 939 requires every city and county to divert 50 percent of all solid waste generated from landfill disposal or face a fine of up to $10,000 per day. Counties have the added responsibility of assuring adequate disposal capacity for the residual trash that remains after recycling for a 15-year planning period.

Since 1990, numerous programs have been implemented at the city and County levels, including curbside recycling, construction and demolition waste recycling, and business recycling enhancement programs. In addition, the County has implemented countywide recycling programs to assist jurisdictions in complying with Assembly Bill 939, such as the Countywide Household Hazardous/Electronic Waste Management Program, the Waste Tire Collection Program, and the Smart Gardening Program.

Methodology Used

Published studies were reviewed and analyzed to comprehensively assess the operational, environmental and fiscal impacts of EPS. In addition, surveys of major food vendors, solid waste facilities, Caltrans, cities, and County departments were conducted to gather information on prevailing recycling, cleanup methods, litter characterizations, and costs. Several public and environmental interest groups, industry, and manufacturing trade organizations were also consulted regarding EPS consumption data, management options, litter impacts, and cleanup efforts. Finally, a questionnaire was provided to County departments and agencies to assess current County practices and determine the viability of eliminating the purchase and use of EPS food containers as called for in the Board motion.

---

[4] County of Los Angeles Statistical Data, http://lacounty.info/statistical_information.htm, December 13, 2007

[5] Los Angeles County Economic Development Corporation, Los Angeles County Profile, May 2006.

[6] Los Angeles County Economic Development Corporation, L.A. Stats, June 2006.

[7] County of Los Angeles Annual Report 2006-2007, http://lacounty.info/miscellany.pdf, (December 18, 2007).

CHAPTER 2

OVERVIEW OF EXPANDED POLYSTYRENE

Overview

Polystyrene, the polymer used to create EPS, was developed in 1938. EPS products were produced after 1944 and used as packaging material. After fast food and take-out restaurants became more commonplace in the 1950's and 1960's, EPS food packaging containers became more prevalent.

History of Expanded Polystyrene (EPS)

1944: EPS first used as packaging material.

1960's: Fast food restaurants begin using EPS for food containers.

1987: City of Berkeley, CA bans the use of EPS food containers at restaurants and other retail food establishments.

1988: Suffolk County, NY bans the use of EPS for food containers in restaurants and other retail food establishments.

1989 The U.S. Department of Interior banned EPS food containers at its Washington, DC headquarters.

1990: McDonald's begins to phase out EPS food containers nationwide.

2004: The California Integrated Waste Management Board issues a report which finds that public education efforts need to be improved to deliver a consistent litter message, litter studies are needed to determine how to best handle the litter problem, and biodegradable alternatives to EPS containers need to be tested.

2005: City of Malibu bans the use of polystyrene food containers (Type #6 plastic, which includes EPS) citywide.

2006: City of Santa Monica bans the use of polystyrene food containers (Type #6 plastic, which includes EPS) citywide. Ordinance took effect February 2008.

2007: City of Calabasas bans the use of polystyrene food containers (Type #6 plastic, which includes EPS) citywide. Ordinance took effect March 2008.

How Is EPS Manufactured?

Plastic resin is created from long chemical chains called polymers, commonly extracted from petroleum and natural gas processing. The main polymer used, styrene, is treated with a polymerization indicator to convert it to polystyrene. Once the polymer chain is at the correct length, terminating agents are introduced to stop the reaction. The results are a chain of beads which are cleaned. The beads are melted down and a blowing agent is added to extrude the beads, which are reheated, expanded, and cooled. After cooling, the beads are fed into a mold of the desired shape.

How is EPS Recycled?

A survey of waste haulers and materials recovery facilities (MRFs) found that the overwhelming majority of haulers and facilities do not accept EPS food containers from curbside recycling. MRFs separate materials delivered using a variety of mechanical and manual sorting systems. Their main objective is to maximize diversion of recyclables from the waste stream, while reducing cost and maximizing revenue from those materials targeted for recovery. The most commonly recovered materials include some plastic containers, paper, aluminum cans, and cardboard because they are easy to collect, have an available market, and provide the most revenue without costly specialized sorting machinery. Interviews and site visits of these recovery and recycling facilities revealed that EPS *product packaging* is targeted for recovery; however, EPS *food containers are not targeted for recovery*, but instead taken to landfills for the following reasons:

- EPS *food containers* have high contamination rates from food and may contaminate other recyclables as well. Additionally, EPS *food containers* are contaminated when they come into contact with items in the recycling collection bin. EPS *food containers* that are contaminated cannot be efficiently recycled.
- EPS *food containers* are smaller than EPS product packaging (e.g., for TVs, stereos, etc.), and tend to break up into smaller pieces when handled by machinery, making collection of EPS challenging.
- It is not currently cost efficient to recycle EPS *food containers* as the market for this material is weak, largely due to contamination issues coupled with the relative cost to collect, clean, and densify these materials.

The national recycling rate for all EPS products (which includes product packaging and food containers) is only 0.2 percent.[8] Since food containers are even more challenging to collect and recycle, it is assumed that the 0.2 percent recycling rate is mostly due to product packaging and that the recycling rate for food containers is virtually nonexistent. Very recently, a method has been developed for the separate collection and aggregation of source separated EPS food packaging containers for recycling. In order to be successful, EPS users must have significant quantities of uniform EPS food

---

[8] "Use and Disposal of Polystyrene in California," California Integrated Waste Management Board, 2004. (http://www.ciwmb.ca.gov/Publications/Plastics/43204003.doc). EPS food containers may have a lower overall rate due to additional challenges of collecting and recycling these materials.

packaging containers that can be relatively clean and entirely separated from other materials for collection. In certain applications this system can provide for the collection and recycling of EPS food packaging containers.

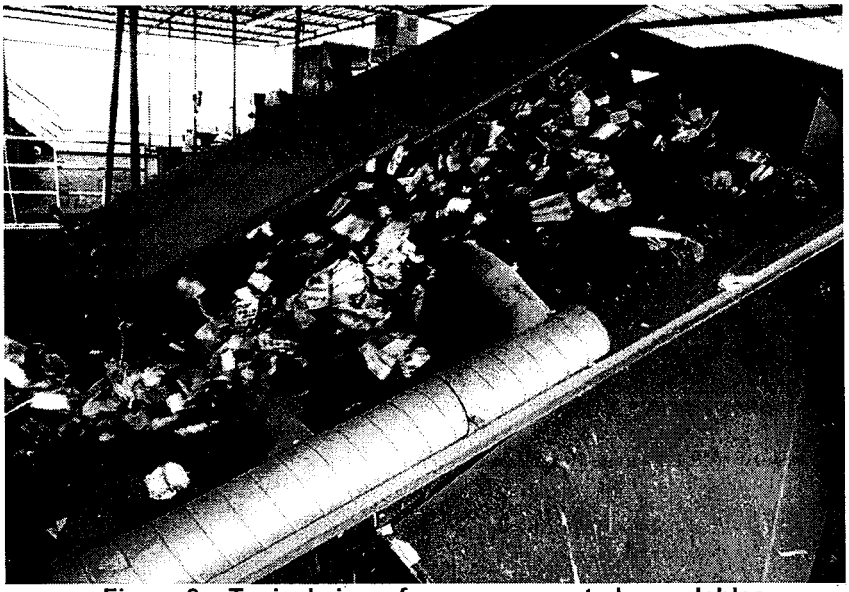


Figure 3 – Typical view of source-separated recyclables traveling along a sorting conveyor belt at a recycling facility

EPS Usage Information

Below is a table summarizing consumption, disposal and recycling rates of EPS in California. Rates for Los Angeles (countywide and unincorporated) are extrapolated based on population.

Table 1 – Expanded Polystyrene Usage Statistics

Item	Statistic
Annual EPS Consumption Rate	
California	56,637 tons
Countywide	15,858 tons
Unincorporated County area	1,586 tons
Annual Rate of Disposal at Landfills	
California	45,000 tons
Countywide	12,000 tons
Unincorporated County area	1,200 tons
Percentage of Overall Disposal Waste Stream	0.12 percent by weight
Annual Rate of Recycling	

Item	Statistic
National	0.2 percent[9]

Do County Departments Use EPS Food Containers?

In order to determine possible impacts to County departments, DPW distributed a questionnaire in September of 2007 to all County departments assessing current usage of EPS food containers at County operations, including cafeterias and food service provided at County offices. In coordination with the Internal Services Department, usage information was gathered and compiled in Table 2 below. Only seven departments indicated any substantial use of EPS food containers. A complete summary of responses from all departments and a sample questionnaire are included in Appendix D.

Table 2 -- Use of EPS Food Containers by County Departments and Agencies

County Department	Use EPS?	Quantity of Use/Comments
Agricultural Commission/Weights and Measures	**No**	
Alternate Public Defender	**No**	
Animal Care and Control	**No**	
Auditor-Controller	**No**	
Beaches and Harbors	**No**	
Board of Supervisors	**No**	
Chief Executive Office	**Yes**	500-1,000 units per year
Chief Information Office	**No**	
Child Support Services	**No Response**	
Children and Family Services	**No**	
Commission on Human Relations	**Yes**	5,000 cups, 2,000 plates per year
Community and Senior Services	**Yes**	49,000 trays, 24,000 bowls, 47,000 cups per year
Community Development Commission	**No**	
Consumer Affairs	**Minimal**	Used for special events only

[9] Ibid. Based on recycling rate of all polystyrene food containers; EPS food containers may have a lower overall rate due to additional challenges of collecting and recycling these materials.

County Department	Use EPS?	Quantity of Use/Comments
Coroner	No Response	
County Counsel	No	
District Attorney	No Response	
Fire Department	Yes	72,000 cups per year
Health Services	Yes	1.6 million cups per year
Human Resources	No	
Internal Services Department	No	
Mental Health	Minimal	Used to educate consumers on how to cook and prepare meals
Military and Veterans Affairs	No Response	
Museum of Art	No	
Natural History Museum	No	
Office of Affirmative Action Compliance	No	
Office of Public Safety	No	
Office of Small Business	No Response	
Office of the Assessor	Minimal	Used for special events only
Ombudsman	No	Phased out the use of EPS
Parks and Recreation	Yes	Used at concession stands, exact figures unknown
Probation	No	Phased out EPS in mid 2008
Public Defender	No	
Public Health	No Response	
Public Library	No Response	
Public and Social Services	No Response	
Public Works	Minimal	10,000 cups, 3,800 other containers per year. Phases out all EPS food containers Earth Day (April) 2008
Regional Planning	No	
Registrar-Recorder/County Clerk	No	
Sheriff	Yes	65,000 24oz. cups; 4 million 8oz. cups; 100,000 food containers; and 500,000 trays per year

County Department	Use EPS?	Quantity or Use/Comments
Treasurer & Tax Collector	**No**	

How is EPS Managed in Los Angeles County Jurisdictions?

Out of 88 cities within the County, 19 indicated that they have a curbside EPS collection program. A survey of waste haulers and materials recovery facilities (MRFs) found that the overwhelming majority of haulers and facilities do not accept EPS food containers from curbside recycling. MRFs separate materials delivered using a variety of mechanical and manual sorting systems. Their main objective is to maximize diversion of recyclables from the waste stream, while reducing cost and maximizing revenue from those materials targeted for recovery. The most commonly recovered materials include paper, aluminum cans, cardboard, and certain plastic containers, since these particular materials are easy to collect, have an available market, and provide the most revenue without costly specialized sorting machinery. Interviews and site visits of these recovery and recycling facilities revealed that while in some cases EPS *product packaging* is targeted for recovery, EPS *food containers are not targeted for recovery*, but instead primarily disposed, for the following reasons:

- EPS *food containers* have high contamination rates from food and may contaminate other recyclables as well. Additionally, EPS *food containers* are contaminated when they come into contact with items in the recycling collection bin. EPS *food containers* that are contaminated cannot be efficiently recycled at traditional recycling facilities.
- EPS *food containers* are smaller than EPS product packaging (e.g., for TVs, stereos, etc.), and tend to break up into smaller pieces when handled by machinery, making collection of EPS challenging.
- It is not currently cost efficient to recycle EPS *food containers* as the market for this material is weak, largely due to contamination issues coupled with the relative cost to collect, clean, and densify these materials.

The national recycling rate for all EPS products (which includes product packaging and food containers) is only 0.2 percent. Since food containers are even more challenging to collect and recycle, it is assumed that the 0.2 percent recycling rate is mostly due to product packaging and that the recycling rate for food containers is virtually nonexistent. Very recently, a method has been developed for the separate collection and aggregation of source separated EPS food packaging containers for recycling. In order to be successful, EPS users must have significant quantities of uniform EPS food packaging containers that can be relatively clean and entirely separated from other materials for collection. In certain applications this system can provide for the collection and recycling of EPS food packaging containers.

Legislative Information

Within the past several years, the State legislature has advanced a handful of bills dealing directly with EPS food containers. These bills have dealt with limiting and

prohibiting the distribution of EPS food containers at State facilities, as well as conducting studies dealing with the potential impacts of EPS. Below is a summary of each bill.

AB 904 (Feuer) - Amended 1-29-08, Died in Committee

This bill would prohibit a take-out food establishment from distributing single use food service packaging unless the packaging is either compostable or recyclable. The Board of Supervisors voted to support this bill.

AB 820 (Karnette) - Amended 4-09-07, Died in Committee

This bill would prohibit a State facility from selling, possessing, or distributing EPS food containers after January 1, 2009. State agencies would be directed to require each prospective contractor to certify that it will not sell, possess, or distribute an EPS food container at a State facility. The Board of Supervisors voted to support this bill.

AB 1866 (Karnette) - Amended 5-01-06, Died in Committee

This bill would prohibit State facilities from selling, possessing or distributing EPS food containers, with certain exemptions.

SB 1127 (Karnette) - Chaptered 10-01-01

This bill required the California Integrated Waste Management Board to prepare a study on the use and disposal of EPS in the state and submit a report to the Governor and the Legislature. The report, entitled "Use and Disposal of Polystyrene in California," can be found online at www.ciwmb.ca.gov/Publications/Plastics/43204003.doc.

CHAPTER 3

LITTER AND ENVIRONMENTAL IMPACT

Litter Impact

The widespread use of EPS in the fast food industry and its propensity to become litter has resulted in large quantities of EPS material entering our streams, rivers, and ocean. These light-weight materials are easily windblown into our storm drain system, and are subsequently carried downstream where they pollute and harm our environment and wildlife. They are frequently entangled in brush, tossed along freeways, and caught on fences. Because EPS food containers persist in the natural environment and are also easily broken into small pieces, they are very challenging to contain or collect, and pose a significant nuisance and source of visual blight compared to other littered materials. They are also easily mistaken for food and end up ingested by wildlife, where they can cause harm in the following unintended ways: clogging the throat, thus choking the animal; artificially filling the stomach so that the animal cannot consume food, depriving them of nutrients; and infecting them with harmful toxins that can poison the animal.[10] This blight impacts the County's recreational areas and the quality of life for residents and visitors.

The unsightly accumulation of EPS food containers is clearly visible in our storm drains and waterways. They are commonly seen floating on the water among other debris. Several litter studies have found that EPS makes up a majority of particles in the total litter stream.[11]

---

[10] http://www.marinedebris.noaa.gov (December 12, 2007), http://www.plasticdebris.com (December 12, 2007), http://www.algalita.org (December 12, 2007)

[11] "Working Our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California" - C.J. Moore, G.L. Lattin, A.F. Zellers, Algalita Marine Research Foundation http://conference.plasticdebris.org/whitepapers/CJ_Moore_Working_Our_Way_Upstream.doc pg 6, Table 5. December 18, 2007.

Figure 4 – EPS food containers caught in fence

Public agencies collectively spend tens of millions of dollars annually on litter prevention, cleanup, and enforcement activities to address this litter problem. The litter collected is composed of constituents including EPS food containers. Compounding the situation, the cost to local governments in Los Angeles County is expected to dramatically rise over the next few years in order to comply with the Federal Clean Water Act.

Inevitably, the cost for cleanup is passed on to residents in the form of higher disposal costs and other taxes. In addition, despite the efforts of various cleanup activities and thousands of residents who annually volunteer countless hours in beach, roadside (e.g., Adopt-A-Highway programs), park, and neighborhood cleanups, EPS food container litter remains a significant problem.

Litter Impact on Local Waterways and Beaches

Los Angeles County beaches are a tourist attraction, attracting millions of residents and visitors each year. In 2004, a study of litter in the Los Angeles River conducted by the Algalita Marine Research Foundation found that EPS made up the majority of the total litter stream.[12] A 1998 study quantified the composition of beach debris in Orange County, California, and found that foamed plastics (refers to EPS) comprised 43 percent of materials collected by abundance.[13] Due to its very low weight density, the composition of EPS was found to be only 6 percent by weight of the debris within the study area.[14] Because EPS is significantly less dense (lighter) than other materials, it is typical for this material to show up in much higher volumes or quantities while being a relatively small proportion of the material by weight. Additionally, the results show that EPS food container fragments from the waterways are often carried to local beaches.

Table 3 includes a summary of recent analyses of litter cleanups and the composition of the collected litter with regard to EPS, followed by a short description of each study.

Table 3 -- Summary of Litter Studies

	All Plastics			Plastic Foam/EPS		
	Weight %	Volume %	Count / Abundance %	Weight %	Volume %	Count / Abundance %
Caltrans Litter Management Pilot Study (1998-2000)	33	43		5	15	
City of Los Angeles Characterization of Urban Litter (6/10/2004)	71	79		7	17	
Composition and Distribution of Beach Debris in Orange County, California (1998)[15]	34		81	6		43
Greater Los Angeles River Clean-Up (4/30/2004)		37			3	
"Working Our Way Upstream" (2004-2005)[16]				18		83

[12] Working Our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California - C.J. Moore, G.L. Lattin, A.F. Zellers, Algalita Marine Research Foundation http://conference.plasticdebris.org/whitepapers/CJ_Moore_Working_Our_Way_Upstream.doc

[13] Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg and M.K. Leecaster. – 2001. Composition and distribution of beach debris in Orange County, California. Mar. Pollut. Bull., 42(3): 241-245., The percentage is calculated outside of pre-production pellets, which do not originate from consumer or residential sources.

[14] Ibid.

[15] Ibid.

[16] "Working Our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California" - C.J. Moore, G.L. Lattin, A.F. Zellers, Algalita Marine Research Foundation. The percentage is based on the study of the Los Angeles River over 3 sample dates.

- Caltrans Litter Management Pilot Study -- The purpose of the study was to investigate the characteristics of litter in freeway stormwater and the effectiveness of best management practices. The study was conducted from 1998 through 2000 on a freeway in the Los Angeles area. Results showed that EPS was 5 percent by weight of the litter collected and 15 percent by volume.

- City of Los Angeles Characterization of Urban Litter -- On June 10, 2004, litter was cleaned from 30 storm drain catch basins and characterized for plastics and EPS separately, among other litter types. Approximately 60 cubic feet of litter was collected and sorted. Results showed EPS to be 7 percent of litter by weight and 17 percent of total litter by volume.

- Composition and Distribution of Beach Debris in Orange County, California -- The purpose of this study was to quantify the distribution and types of beach debris by sampling 43 stratified random sites on the Orange County coast from August to September 1998. Outside of pre-production pellets, which do not originate from consumer or residential sources, EPS made up 6 percent of the weight and 43 percent of the abundance of the beach debris collected.

- Greater Los Angeles River Clean-Up -- During an April 30, 2004 clean-up event, organized by the Friends of Los Angeles River, a waste characterization study was conducted. Approximately 60 cubic feet of litter was collected and sorted. Results showed plastic film to be 37 percent of the total litter by volume. This percentage does not include moldable plastics, which was a separate category.

- Working Our Way Upstream: A Snapshot of Land-Based Contributions of Plastics and Other Trash to Coastal Waters and Beaches of Southern California, -- Conducted by the Algalita Marine Research Foundation, this study analyzed plastic trash between 1 mm and 5 mm in size as well as plastic trash less than 5 mm from two Southern California Rivers; the Los Angeles River and the San Gabriel River. Based on three sampling dates for the Los Angeles River, the EPS averaged 18 percent of the weight and 83 percent of the abundance of the plastic trash gathered.

Current cleanup equipment is ineffective at collecting EPS fragments from beaches, rivers, and parks due to the tendency of EPS food containers to break apart into smaller pieces. At County beaches, litter is primarily collected using machines that quickly pick up a majority of litter. The two most common machines are called the Rake and the Sanitizer. The Rake uses metal fingers to comb through the sand to pickup litter on the beach; however these metal fingers only pick up larger items and are ineffective at collecting items with a diameter of 0.5 inches (13 mm) or less. The Sanitizer, which is the most common machine utilized, skims the top 2 inches (50 mm) of sand with a large flat blade. The sand and are then screened, sending litter up the screen conveyer to a collection bucket and returning sand to the beach. Although the Sanitizer is effective in collecting items larger than 5 mm (0.2 inches), it cannot collect smaller littered fragments.

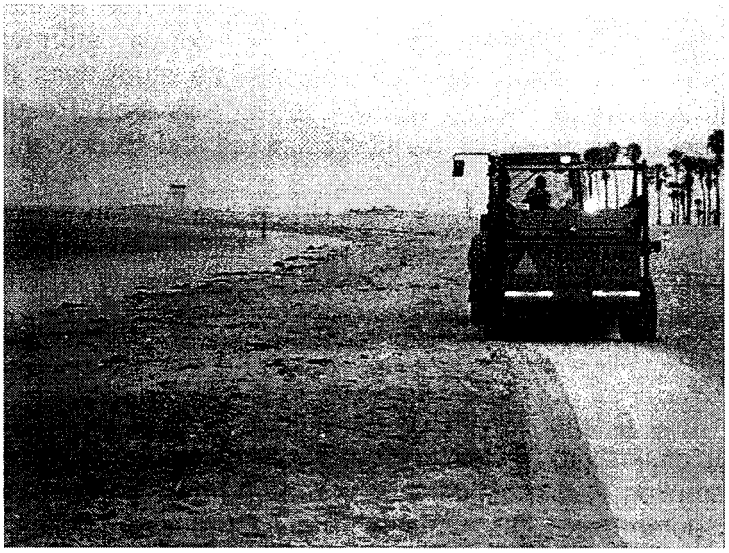


Figure 5 – Sanitizer machine cleaning Venice Beach

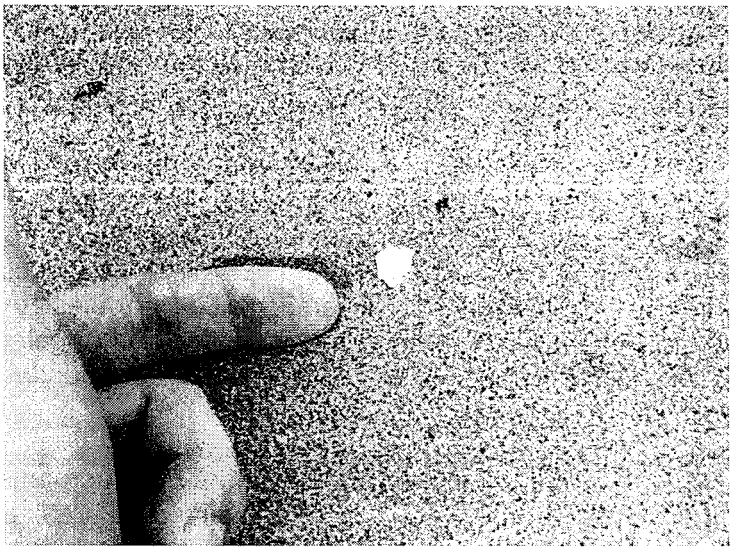


Figure 6 – EPS fragment not collected by the sanitizer beach cleaning machine at Venice Beach

Another collection issue is that current machines do not work near the wet sand area, allowing debris in this area to be washed into the ocean. Furthermore, other recreational areas such as parks cannot utilize such machinery, and must pick up littered items manually. The propensity for EPS food containers to break apart makes this task daunting.

Financial Impact

County of Los Angeles' Litter Clean up/Prevention Costs

The Los Angeles County Department of Public Works (DPW), as the lead County agency responsible for implementing litter reduction and education programs, implements a variety of programs to reduce the impact of litter on our communities. This includes litter collection along roadways, street sweeping, emptying public trash containers, catch basin cleanouts, flood control channel cleanups, stormwater pollution prevention activities, capital improvement projects, implementing best management practices, and implementing public education and outreach activities. The County of Los Angeles and the Flood Control District (FCD) spend approximately $18 million per year to carryout these responsibilities.

In order to maintain the integrity of the County storm drain system and meet National Pollutant Discharge Elimination System (NPDES) permit requirements, DPW cleans out litter from 78,000 catch basins and additional city-owned catch basins at least once a year. Catch basins that collect considerable litter are cleaned up to three additional times a year. Over 644 tons of litter were removed from County and city catch basins in the 2005-2006 storm season.

DPW also installs and maintains numerous devices that remove litter from the storm drain system. These include 1,026 catch basin inserts and 1,826 curb inlet catch basin retractable screens, 61 "full capture" hydrodynamic separators, 4 end-of-pipe screens, and 21 in-stream floating booms or nets. In addition, the County has contracts for services to clean out trash and debris from channel inverts and rights-of-way.

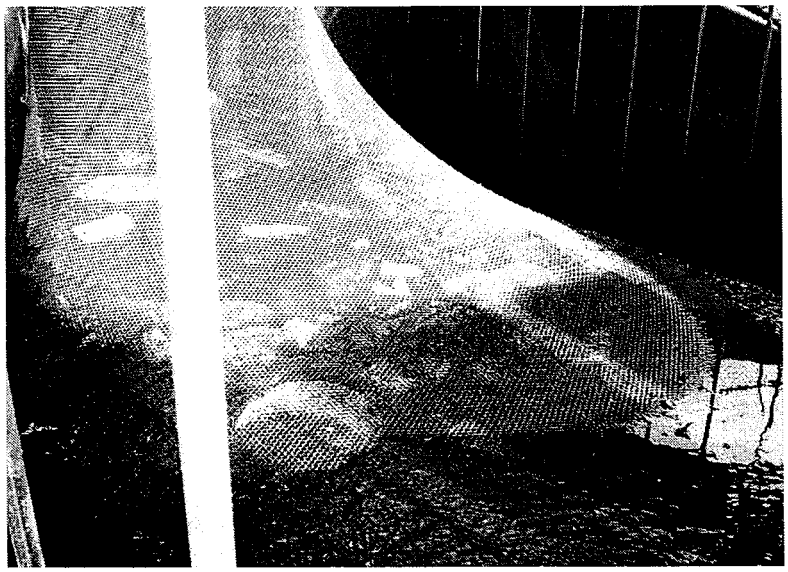


Figure 7 - End-of-pipe net at Hamilton Bowl

Zero Trash TMDL

The FCD, the County of Los Angeles, and cities within the County are required by their NPDES permits to prevent discharges into its rivers, lakes, and ocean. In addition, the Regional Water Quality Control Board (RWQCB) has imposed total maximum daily loads (TMDL) for what can enter these water bodies. Therefore, the County must implement best management practices to meet these TMDL requirements. The County has for years implemented and maintained numerous best management practices to prevent littering and to remove the litter from its right-of-way and its storm drain system.

Recently, the RWQCB established a zero trash TMDL for the Ballona Creek and Los Angeles River watersheds. These TMDLs require a 10 percent annual reduction of trash entering the water body until zero trash is reached. The zero trash TMDL for both watersheds is to be reached in 2014. These TMDLs not only affect the County of Los Angeles, but also many other agencies. For example, the Ballona Creek Trash TMDL also applies to the California Department of Transportation (Caltrans) and the cities of Los Angeles, Culver City, Beverly Hills, Santa Monica, West Hollywood, and Inglewood. The Los Angeles River Trash TMDL also affects Caltrans, the City of Los Angeles, and 41 other municipalities within the Los Angeles River watershed. The estimated annual operation and maintenance costs to comply with these requirements for the DPW and other agencies is expected to exponentially increase in coming years.

Figure 8 – EPS caught in the In-Stream Floating Net

Figure 9 – EPS in the river

Caltrans - District 7, which includes Los Angeles and Ventura Counties and is the second largest of the 12 workforce districts, is responsible for maintaining 915 freeway and highway miles in Los Angeles County. Its maintenance activities include removing litter from freeways and highways. In fiscal year 2005-2006, District 7 collected 50,000 cubic yards of litter and debris at a cost of $12 million, not including the thousands of man hours spent by community service workers collecting litter along the highways.

Ecosystem Impacts From Littered Expanded Polystyrene Food Containers

EPS food container litter not only creates blight, it also has many adverse effects on marine and land-based wildlife. Due to the County's extensive and diverse watersheds, many of the littered EPS food containers find their way into local beaches, and eventually the ocean. Studies have reported that up to 90 percent of marine debris is plastic, and most of the debris (60 to 80 percent) is land-based.[17] Several litter clean-ups in Southern California show that EPS food containers make up a considerable portion of the litter.[18] It is estimated that over 267 species of wildlife have been affected by EPS litter, including birds, whales, fish, and many other wildlife.[19]

---

[17] "The Problem with Marine Debris," California Coastal Commission, http://www.coastal.ca.gov/publiced/marinedebris.html (June 17, 2008).
[18] Moore, S.L., D. Gregorio, M. Carreon, S.B. Weisberg and M.K. Leecaster. – 2001. Composition and distribution of beach debris in Orange County, California. Mar. Pollut. Bull., 42(3): 241-245.,
[19] "The Plastic Debris, Rivers to Sea Project," Algalita Marine Research Foundation, http://www.plasticdebris.com/PRDS_Brochure_DOWNLOAD.pdf. (December 18, 2007).

Figure 10 – Egret looks for food among EPS and other trash

Although the impacts of EPS on the ecosystem are not precisely quantified, several anecdotal reports have documented numerous health impacts on wildlife and the natural environment attributed to EPS litter. EPS has impacted marine life and the environment in the following unintended ways:

- Depriving animals of nutrients by artificially filling the stomach so that food cannot be consumed. Whales and large birds, for example, often have particles permanently lodged in the stomach after inadvertently swallowing EPS particles during feeding.
- Infecting wildlife with harmful toxins that can poison the animal.[20]
- Photo-degradation causes plastics to breakdown into small pieces, further dispersing EPS particles in the environment.
- Small pieces are capable of absorbing and concentrating other harmful pollutants.[21]

---

[20] NOAA Marine Debris Program, www.marinedebris.noaa.gov (December 12, 2007), "The Plastic Debris, Rivers to Sea Project," Algalita Marine Research Foundation, http://www.plasticdebris.com/PRDS_Brochure_DOWNLOAD.pdf. (December 18, 2007).

[21] "Pelagic Plastic - A Report to the California Legislature," prepared by the Algalita Marine Research Foundation. April 9, 2007.

Anti-littering Law

State law requires any person convicted for littering to pay the following fines:

- Between $250 and $1,000 (first conviction)
- Between $500 and $1,500 (second conviction)
- Between $750 and $3,000 (third conviction)

In addition, the court may require a person to perform eight hours of community service by picking up litter.[22]

This law is difficult to enforce because a law enforcement officer must observe the person in the act of littering. In addition, the inadvertent littering of EPS food containers due to wind (which is a significant source) is extremely difficult to enforce because it is not possible to identify and fine the person causing the inadvertent litter.

[22] Section 374.4 of the Penal Code.

CHAPTER 4

ALTERNATIVE PRODUCTS ASSESSMENT

Many alternatives are available to assist County facilities in successfully transitioning away from expanded polystyrene (EPS) food containers where appropriate. By utilizing alternative products instead of EPS food containers, the County can reduce the environmental and economic impacts of these materials. The following chapter focuses on these alternative products, including an explanation of their effective use, a brief description of the manufacturing processes, and the relative impact of these products on the environment.

List of Current Alternative Products

The following is a list of alternatives to EPS food containers.

- Reusable Products: Reusable products include glass, ceramic, wood, metal, hard plastic, stoneware, or other durable products designed to be reused.

- Recyclable Products: Single-use products made entirely from plastic, aluminum tin, and other materials that can be readily recycled. This includes non-foamed polystyrene products.

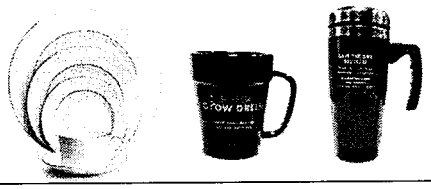
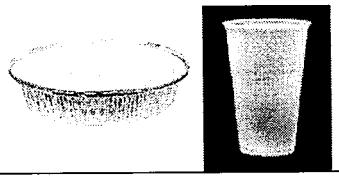
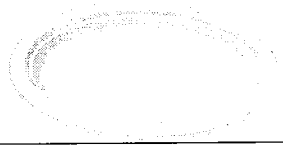
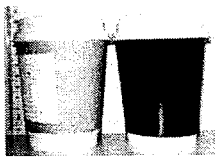
- Biodegradable Polymer Products: These are new products utilizing corn, potato, sugarcane, or other natural starches and fibers to create biodegradable products.

- Paper Products: Paper products are made from tree fibers (virgin or recycled). For purposes of this report, paper products lined with biodegradable materials are considered equivalent to pure paper products.

- Non-biodegradable Coated Paper Products: Paper products coated with a non-biodegradable petroleum-based liner.

A table of these products, with cost information and a visual representation, is presented on Table 4.

Table 4 – Types of alternatives to EPS*

	Product Category	Average Cost/Item	Visual
Reusable	Durable Goods (Reusable)	Various	
Recyclable Products	Recyclable Products	$0.05 - $0.10	
Biodegradable	Biodegradable polymers, including Bagasse and Polylactic Acid (PLA)*	$0.05	
		$0.25	
		$0.12	
		$0.20	
	Paper	$0.06	
Other	Coated Paper Products (cups with non-biodegradable petroleum based coating look the same but cost less, about $0.06)	$0.05 - $0.10	

* Defined on page 26.

- In comparison to EPS food containers, comparable alternative products may be significantly more expensive to purchase, depending on the nature of the

material used, manufacturing process, and the durability of the product. However due to the diversity of readily available alternatives, some of which are comparable in cost to EPS, the vast majority of County Departments can comply with this restriction with little or no impact on their overall budgets, of which food container purchases are only a small component. For other Departments where health, safety and/or security may require a specific type of alternative product in lieu of EPS food containers, the transition to an alternate product may not be feasible for the foreseeable future based on the significant cost involved.

Assessment of Relative Impacts

In order to accurately assess the current market of products available as alternatives to EPS food containers, the materials listed below were evaluated based on the following key criteria: product type, renewable properties, compostibility, recyclable, litter potential. This analysis shaped the hierarchy of alternatives recommended in Chapter 6. A more detailed discussion of the relative impacts of these alternatives follows below in Table 5.

Table 5 – Product Impact Matrix

	ENVIRONMENTAL PROPERTIES			
PRODUCT TYPE	RENEWABLE	COMPOSTABLE OR BIODEGRADES IN NATURAL ENVIRONMENT	RECYCLABLE	TENDENCY TO BECOME LITTER
Reusable	Varies	N/A	Varies	Unlikely
Polylactic Acid (PLA)	Yes	Yes	No	Somewhat
Other Compostable Polymers	Yes	Yes	No	Somewhat
Paper	Yes	Yes	Yes, but challenging	Somewhat
Coated Paper (petroleum-based coating)	No	No	No	Somewhat
Plastic #1&2	No	No	Yes	Somewhat
Plastic #3-7 (incl. non-EPS #6)	No	No	Yes, but challenging	Somewhat
EPS	No	No	Yes, under limited circumstances	Highly

Product Types

Reusable Products

The preferred environmental alternative to EPS products are reusable products. These products can be made from glass, ceramic, wood, metal, hard plastics, stoneware or other durable materials designed to be reused. Since they can be reused over and over again, these products can reduce impacts from the extraction of raw materials, manufacturing, and transportation of disposable products, and thus are exceedingly more sustainable than any other disposable or single-use alternative.

Compostable/Biodegradable Products

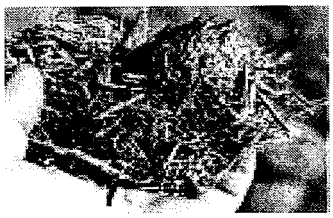
Compostable/Biodegradable products are more sustainable and carbon neutral, and can be derived from potato, corn, wheat, sugarcane, or tapioca sources, and are suitable as hot and cold food containers. These materials are capable of undergoing decomposition and can be used as an organic feedstock or soil amendment when commercially composted.

Compostable/Biodegradable products are: 1) certified based on the American Society for Testing and Materials standard D6400; 2) comparable in energy and emissions to EPS; and 3) able to decompose naturally in the environment. However, these products are typically more expensive than EPS. Depending on numerous factors, including quantity, type of container, material type, vendor source, etc., these products may be up to twice as expensive as comparable EPS food containers. In addition, it is unlikely these products will be composted due to the lack of commercial composting facilities in Los Angeles County.

There are a variety of biodegradable materials derived from natural resources and include products made from the following materials:

- PLA: is a corn-based resin used to create clear plastic cups and containers suitable for cold food and drink (up to 110° F). PLA is also used as a coating for various paper products instead of the conventional poly-ethylene liners. PLA is more expensive than many petroleum-derived commodity plastics, but it is becoming more affordable as production increases. The degree to which the prices will drop, and the degree PLA can compete in the marketplace with petroleum-derived polymers remains uncertain.

- Bagasse: French for waste or refuse, is the shredible leftover remaining after sugarcane extraction which can be molded to create an array of food containers (like paper). Bagasse is suitable for hot and cold food, and is heat resistant up to 220° F.



- Other Biodegradable Products: Like Bagasse, products made of the refuse of corn, potatoes, rice, and other starch materials may be molded to create an array

of food containers used for hot or cold food containers (depending on the manufacturer).

- Paper: Historically, paper has been used as the preferred material for single use packaging or as food item containers. Often, paper products are lined with either plastic or wax to prevent leakage and enhance durability. Paper food containers can be made from tree fiber (virgin or recycled), and can be coated with bio-plastics instead of petroleum derived plastics, making the final product compostable. Paper products, however, have slight drawbacks including emissions generated from manufacture.

Recyclable Products

Plastics other than EPS are neither biodegradable nor renewable, however certain plastics, especially type #1 (PET) and type #2 (HDPE), have a well established recycling market. This is due to the widespread acceptance of these plastics in curbside recycling programs and the California Redemption Value placed on certain plastic beverage containers. As a result, these plastic containers have a greater chance of being recycled and are less likely to end up as litter. Higher number (type #3-7) plastics are more challenging to recycle and also have a lower market value, as a result they are recovered for recycling at a much lower rate. Appendix E explains the differences among these plastics and their most common uses among food containers. Other recyclable products include aluminum or tin containers that can be cleaned and recycled through curbside recycling.

Issues Impacting Alternatives Assessment

Sustainability

The sustainability of products is a critical component of the net environmental impacts of different alternatives, and takes into account the life cycle energy and materials needed to make the product, the source of the materials from which the product is made, and the recyclability of the products. In general, products made from renewable, naturally occurring resources (such as tree fiber or other plant material) are more sustainable than products made from non-renewable resources, such as fossil fuels. Since these products are made from natural and renewable resources rather than non-renewable (and by definition non-sustainable) resources, they are considered by industry standards to be carbon neutral and sustainable.

Single-Use Disposal

The CIWMB believes "replacing single-use food service polystyrene, which cannot be effectively recycled, with compostable alternatives may provide additional source

reduction potential."[23] In general, most EPS food containers are highly contaminated by food residue which, as a result, cannot be recycled. Recycling EPS food containers is currently not economically viable due to the high cost of transporting large volumes of the light weight material and the low cost of virgin material. Contamination, along with the low market value of recycled EPS, has hindered development of an EPS recycling market. Consequently, EPS food containers are used and disposed of after a single use.

Biodegradability/Compostability

Biodegradable alternative products that require a commercial composting facility for full breakdown face a considerable hurdle due to the lack of composting infrastructure within Los Angeles County. While there are currently no commercial composting facilities in the County, the Sheriff's Department is currently investigating development of an in-vessel composting facility at their Pitchess Detention Center, a model that can be replicated at other County facilities. Composting would reduce environmental impacts, including disposal impacts of biodegradable alternatives, and may provide an additional cost reduction from disposal costs that would help offset the fact that biodegradable products are generally more expensive.

Recycling

EPS food containers collected through a curbside recycling program or left in a drop-off bin are very often contaminated, which limits their recyclability.[24] Very recently, a method has been developed for the separate collection and aggregation of source separated EPS food packaging containers for recycling. In order to be successful, EPS users must have significant quantities of uniform EPS food packaging containers that can be relatively clean and entirely separated from other materials for collection. In certain applications this system can provide for the collection and recycling of EPS food packaging containers. On the other hand, plastic products, especially those made from #1 or #2 plastics and those with a CRV value, along with aluminum products, have been shown to be effectively recovered and recycled.

---

[23] "Use and Disposal of Polystyrene in California", California Integrated Waste Management Board. 2004. http://www.ciwmb.ca.gov/Publications/Plastics/43204003.doc

[24] Ibid.

CHAPTER 5

MUNICIPAL BANS – CASE STUDIES

Many cities and counties throughout the nation have adopted resolutions or ordinances aimed at limiting the negative impacts of expanded polystyrene (EPS) in their communities. Since 1988, 14 jurisdictions have been identified as having implemented a ban on polystyrene. Below are summaries of these case studies.

City of Aliso Viejo

The City of Aliso Viejo adopted an ordinance prohibiting the use of EPS food service products in 2004. The ordinance prohibits the use of EPS food containers by the City of Aliso Viejo, within city-owned property, facilities, and city-sponsored events. The ordinance is enforced by the City Manager and violations of the ordinance result in issuance of administrative citations.

City of Berkeley

The City of Berkeley adopted an ordinance in 1988 to prohibit the purchasing and use of EPS food containers, which took effect on January 1, 1990. The ordinance prohibits the use of EPS food packaging containers by the City of Berkeley and at any City-sponsored event. The ordinance also prohibits restaurants and retail food vendors from utilizing EPS food containers. The ordinance is monitored by the City Manager, who may grant specific exemptions. Violations of the ordinance may result in an infraction of the Berkeley Municipal Code, leading the City Attorney to seek legal, injunctive, or other equitable relief to enforce the ordinance.

City of Calabasas

The City of Calabasas adopted an ordinance prohibiting the use of EPS food service products in 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance also requires the use of environmentally acceptable packaging (i.e. recyclable, biodegradable, degradable) by March 31, 2008, and reporting on-going compliance on the first business day of each calendar year. Violations of the ordinance will result in legal, injunctive, or other equitable relief sought by the City Attorney as an enforcement mechanism.

City of Capitola

The City of Capitola adopted an ordinance prohibiting the use of EPS food service products in 2006, which took effect July 1, 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance also requires the use of biodegradable or compostable disposable food service ware. Food vendors are strongly

encouraged to re-use food service ware in place of using disposable food service ware. The ordinance is enforced by the City Manager and violations result in issuance of administrative citations.

City of Emeryville

The City of Emeryville adopted an ordinance prohibiting the use of EPS food service products in 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance also requires the use of biodegradable/compostable or recyclable food service ware. The ordinance is enforced by the City Manager and violations result in issuance of administrative citations.

City of Huntington Beach

The City of Huntington Beach adopted a resolution prohibiting the use of EPS food service products in 2004. The ordinance prohibits EPS food containers to be bought or used by the City, within city-owned property, facilities, and city-sponsored events. The resolution is monitored by the Community Services Director and violations result in forfeiture of the contractor's security deposit.

City of Malibu

The City of Malibu adopted an ordinance prohibiting the use of EPS food service products in 2005. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance is monitored by the City Manager and the Parks and Recreation Director, and violations may result in forfeiture of the contractor's security deposit, and or legal, injunctive, or other equitable relief. Enforcement is augmented via reporting from residents and other businesses.

City of Oakland

The City of Oakland adopted an ordinance prohibiting the use of EPS food containers in 2006, which took effect on January 1, 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance is enforced by the City Administrator by responding to citizen complaints, and violations result in issuance of administrative citations.

City of Portland, Oregon

The City of Portland adopted an ordinance in 1988 banning the use of EPS food containers, which took effect on January 1, 1990. The ordinance prohibits restaurants, retail food vendors or non-profit food providers from utilizing EPS food containers. Violations of the ordnance result in a penalty issued by the Office of Sustainable Development specifying the violation and appropriate penalty. The Office of

Sustainable Development is also authorized to promulgate additional regulations and other actions reasonable and necessary to enforce the ordinance.

City of Rancho Cucamonga

The City of Rancho Cucamonga adopted an ordinance prohibiting the use of EPS food service products in 2007. The ordinance prohibits the use of EPS food containers by the City of Rancho Cucamonga, within city-owned property and facilities, and at City-sponsored events. The ordinance does not specify penalties for non-compliance.

City of San Clemente

The City of San Clemente passed a resolution prohibiting the use of EPS food service products in 2004. The resolution prohibits the use of EPS food containers within City facilities and at City-sponsored events. Violation results in forfeiture of security deposit and an automatic denial of future rental requests.

City and County of San Francisco

The City and County of San Francisco passed an ordinance prohibiting use of EPS food service products in 2006, which took effect June 1, 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and City-sponsored events from utilizing EPS food containers. The ordinance also requires use of biodegradable/compostable or recyclable disposable food service ware. The ordinance is enforced by the City Administrator and violations of the ordinance result in issuance of administrative citations.

City of Santa Monica

The City of Santa Monica adopted an Ordinance prohibiting the use of EPS food service products in 2007. The ordinance prohibits City facilities, restaurants, retail food vendors or non-profit food providers, and city-sponsored events from utilizing EPS food containers. The ordinance also required the use of biodegradable/compostable or recyclable disposable food service ware by February 9, 2008. The ordinance is enforced by the Director of the Environmental and Public Works Management Department and violations result in issuance of administrative citations.

County of Ventura

The County of Ventura adopted a resolution prohibiting the use of EPS food service products in 2004. The resolution prohibits the use of EPS food service products at the County harbor, parks, government center, and at County-sponsored events. The ordinance does not specify penalties for non-compliance.

CHAPTER 6

FINDINGS AND RECOMMENDATIONS

Key Findings

Findings in the report are based on two components, the first involving research findings related to environmental factors and the second involving findings based on questionnaire responses received from County departments and agencies. (Appendix D)

Findings based on environmental factors:

- Reducing the use of EPS food containers would result in a benefit to the environment by reducing litter, and in turn, reducing the negative impact on the marine environment and other wildlife. This reduced litter would also lead to a decrease in cleanup costs.
- Replacing EPS products with reusable and durable goods, where applicable, would have the highest positive impact on the environment.
- Developing a policy restricting the use of EPS products and promoting environmentally friendly alternatives would boost other environmental initiatives and raise environmental awareness.

Findings based on county questionnaire responses:

- Prohibiting the purchase and use of EPS food containers at all County-owned facilities, County offices, County-managed concessions, County-permitted events, and County-sponsored events would be feasible to a great extent, since use of EPS by County departments is relatively moderate and several County departments already use alternative products to some extent.
- In comparison to EPS food containers, comparable alternative products may be significantly more expensive to purchase, depending on the nature of the material used, manufacturing process, and the durability of the product. However due to the diversity of readily available alternatives, some of which are comparable in cost to EPS, the vast majority of County Departments can comply with this restriction with little or no impact on their overall budgets, of which food container purchases are only a small component. For other Departments where health, safety and/or security may require a specific type of alternative product in lieu of EPS food containers, the transition to an alternate product may not be feasible for the foreseeable future based on the significant cost involved.
- Utilizing alternative products is a viable option for departments and agencies provided that additional funding is available. It is expected that most Departments will be able to make the necessary adjustment in future year budgets. If this is not possible, Departments will need to apply for a waiver.

Recommendation for Consideration by the Board of Supervisors

Since EPS food containers contribute disproportionately to the litter and environmental problem within the County of Los Angeles, the County working group recommends phasing out the purchase and use of EPS food containers and encouraging the use of environmentally preferable alternatives by County operations. The following Board action would facilitate implementation of this recommendation:

Adopt a restriction on the purchase and use of all EPS food containers, beginning July 1, 2009, at County-owned facilities, County offices, County-managed concessions, County-permitted events, and County-sponsored events.

Further, authorize the County's Energy and Environmental Team (Team) to grant a waiver under the following circumstances:

- Health and/or safety operational issues are demonstrated;
- Existing contract requirements stipulate the purchase of EPS products and the contract cannot be amended; and/or
- A County facility incorporates full containment and collection of all EPS food containers generated on site, for the purposes of recycling those containers.

Note: County agencies requiring a waiver must submit a request to the Team specifying the reason(s) a temporary waiver is needed. The Team, in consultation with ISD and Public Works, will make a determination regarding requests on a case by case basis.

In consultation with ISD and Public Works, the Team will provide semi-annual progress reports for a three-year period describing the progress and efforts to phase-out the use of EPS food containers at County operations, including a summary of approved waivers. The Team will also notify Departments of the new policy and provide training on environmentally-friendly alternatives to EPS food containers.

ISD will update the existing Countywide Purchasing Policy for the Purchase of Environmentally Preferable (Green) Products, Policy No. P-1050 (Appendix C), to include an EPS food and beverage container component with specific emphasis on the following hierarchy for procurement of alternative products, as shown in Figure 2 below:

a. Reusable and durable goods
b. Biodegradable single-use products, including paper-based single-use products with no petroleum coating
c. Recyclable single-use products
d. Other non-EPS products
e. EPS products, for those cases where a waiver is approved

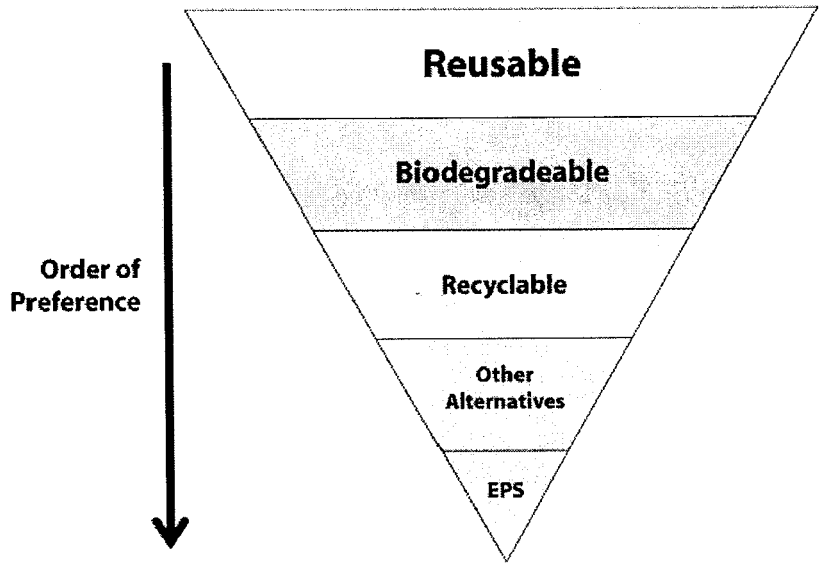


Figure 2 – Hierarchy of Preferred Alternatives for Procurement

In consultation with ISD and DPW, the CEO will retain a consultant to initiate product alternative and guideline study for County purchase agreements for vendors who provide alternative products based on the hierarchy cited in Figure 2 above. The consultant will then develop an EPS training program and train County departments.

Appendices

Appendix A:
Guidance Matrix

APPENDICES

Appendix A: Guidance Matrix

This table provides guidance for compliance with the County ban of EPS food containers.

	Must be educated on environmentally-friendly alternatives to EPS food containers	Should procure and utilize alternatives to EPS products directly*	Procuring products from contracted vendors or through ISD**
Organizers of County-sponsored events	√	√	
Permitee of County permitted events	√	√	
County-managed concessions	√		√
County employees	√	√	
Employee clubs	√	√	
County offices	√		√
County-owned facilities	√		√

*Appendix B provides a list of vendors for this purpose. This is not intended to be an exhaustive list, but serves as a reference.

**ISD has developed a bid for replacements to all EPS products for contracts they coordinate, and is available to assist other Departments in adjusting language in vendor contracts to ensure proper specifications for alternative products.

Appendix B:
List of Vendors

Appendix B: Summary of Food Service Ware Vendors

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
Access Group	14470 Doolittle Dr San Leandro CA	(510) 567-100	www.accessgroupnca.com	Containers, Bowls, Cups, Plates	PLA, Bagasse, Paper Fiber	No
American Paper and Plastics Inc.	1051 E Valley Blvd, El Monte, CA	(626) 444-0000	www.appinc.com	Containers, Bowls, Cups, Plates	PLA, Bagasse, Paper Fiber, Corn, Paper Fiber,	
Bay Brokerage Company Inc	1776 Laurel St, San Carlos, CA	(650) 595-1189	www.baybrokerage.com	Clear Clamshells for Deli Use		No
BioCorp	15301 140th Ave SE Becker, MN 55308	(866) 428-2242	www.biocorpaavc.com	Bio-containers/cups		No
Biodegradable Food Service LLC	17217 Blue Heron Drive Bend, Oregon 97707-2434	(541) 593-2191 (503) 810-5707	www.bdfs.net	Containers, Bowls, Cups, Plates	Bagasse, PLA, PO, Bamboo Fiber, Potato Fiber	No
Biopak-gsd Packaging	1854 East Home Fresno, CA 93703	(559) 441-1181	www.gsdpackaging.com	Paper Containers		No
BiRite	123 South Hill Drive Brisbane, CA 94005	(415) 656-0187 (800) 227-5373	www.BiRite.com	All	Paper Fiber, PLA	No
Brenmarco Retail Store Supplier	8523 South 117th St. Omaha, Nebraska 68128	(800) 783-7759	www.brenmarco.com	All	Paper Fiber, PLA Coating	No
C&J CO	105 Jackson St Oakland CA	(510) 663-0188	N/A	N/A		No
Cash & Carry	2300 57th Street Vernon, CA 90058	(323) 583-0800	www.jetro.com	All	Paper Fiber, PLA	No
Cater Green	Los Angeles	(323)663-7747	www.catergreen.com	Bio-plastics		No
Cereplast	3421-3433 West El Segundo Boulevard Hawthorne, CA 90250	(310)676-5000	www.cereplast.com		Corn fibers	No
Costco	N/A	(415) 626-4388	www.costco.com	Containers, Bowls,	Paper Fiber, PLA	

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
				Cups, Plates		
EarthSmart LL	N/A	(480) 206-4513	www.earthsmartllc.com	Containers		No
Eco-Products	3640 Walnut St. Boulder, CO 80301	(303) 449-1876	www.biodegradablestore.com www.ecoproducts.com	Containers, Bowls, Cups, Plates	Bagasse, PLA, Paper Fiber, Corn	No
Excellent Packaging and Supply	3220 Blume Dr, Suite 111,Richmond CA	(510) 243-9501/ (800) 317-2737	www.excellentpackaging.com	Containers, Bowls, Cups, Plates	PLA, Bagasse, Paper	No
Genpak	68 Warren Street. Glen Falls, New York 12801	(310) 676-5000 (518) 798-9511	www.harvestcollection.genpak.com/products.cfm	Containers, Bowls, Cups, Plates	Corn	No
Good Humans	500 Soquel Ave,Suite F, Santa Cruz, CA	(866) 420-4208	www.goodhumans.com	N/A		No
Green Earth Office supply	P O Box 719, Redwood Estates CA	(800) 327-8449	www.greenearthofficesupply.com	Containers	PLA, Bagasse, Paper, Corn Fiber	No
Green Home	850 24th Ave. San Francisco, CA 94121	(877) 828-6400	www.greenhome.com	Containers	Glass, Corn, PLA, Stainless Steel	No
Green is Green	N/A	(415) 215-8553	http://www.greenisgreeninc.com/GiG-product%20list.pdf	Containers, Bowls, Cups, Plates	Bagasse, PLA, Potato, Corn	No
Green Wave by Western Pacific Associates	623 N. Main Street Orange, CA 92868	(714) 538-8810	www.greenwave.us.com	Containers, Plates	Bagasse,	No
GreenLine	631 S. Pine Street, York PA 17403	(800) 641-1117	www.greenlinepaper.com	Containers, Bowls, Cups, Plates	PLA, Bagasse, Paper Fiber PLA coated,	No
GDS Packaging	1854 East Home Fresno, CA 93703	(559) 441-1181	http://gsdpackaging.com/	Containers	Paper	No
Huhtamaki	9201 Packaging Drive, De Soto, KS 66018	(650) 344-3605 (913) 583-3025	www.us.huhtamaki.com	Containers, Bowls, Cups, Plates		No
Maple Trade Corp	122 Starlite Street, South San	(650) 296-8998	www.mapletradecorp.com	Containers, Bowls, Cups, Plates	Plastic #5	No

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
	Francisco, CA 94080					
Moresco Distributing	1120 Holm Rd, Petaluma, CA	(707) 843-0254	www.moresco.biz	Containers, Cups		No
PAMS	3361 Pomona Blvd, Pomona, CA	(909) 869-7267	www.pamsinc.com	N/A		No
Pan Pacific Export & Import	N/A	(510) 582-4893 (510) 582-4817	www.waterfromfiji.com	Containers, Bowls, Cups, Plates	Bagasse	No
Paper Company	2815 Warner Avenue Irvine, CA 92606	1-(800) 834-6248 (714) 444-2171	http://www.thepapercompany.net	Containers, Bowls, Cups, Plates	PLA, Paper Pla coated, Bagasse, Potato	No
PPT Brothers	N/A	(415) 430-7030	tpm48@hotmail.com	Containers, Bowls	Plastic #5	No
P & R Paper Company	P.O. Box 590 Redlands, CA 92373	(909) 794-1108	www.prpaper.com	Containers	Paper	No
Prime Link Solutions	N/A	(650) 375-1398	alan@primelinksolution.com	Containers, Bowls, Cups, Plates	Bagase	No
Rainbow Grocery	1745 Folsom St., San Francisco, CA. 94103	(415) 863-0620	www.rainbowgrocery.org	Cups, Plates	Bagasse, Corn	No
Recyclaholics	5016 Turtle Lane East, Shoreview MN 55126	(612) 521-5667	www.claholics.com/foodservice.htm	Containers	PLA, Paper Pla coated, Bagasse, Potato	No
Recycline	681 Main St., Waltham, MA 02451	(781) 893-1032	www.recycline.com	Cups, Plates	Plastic #5	No
Restaurant Depot	15-24 132nd Street, College Point, NY 11356	(415) 920-2888	www.restaurantdepot.com	Containers, Bowls, Cups, Plates	PLA, Paper Fiber	No
S F supply Master	N/A	(415) 642-0700	shah@sfsupplymaster.com	Containers, Bowls, Cups, Plates	PLA, Paper Fiber, Bagasse	No
Shop Natural	350 S. Toole Avenue, Tucson, Arizona 85701	(520)884-0745	www.shopnatural.com	N/A		No
Simply Biodegradable	N/A	(509) 910-1430	www.simplybiodegradable.com	Containers	Bagasse, PLA, Corn,	No
Smart and	22631 Ventura	(818) 225-9590	www.smartandfinal.com	Containers, Bowls,		No

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
Final	Blvd, Woodland Hills CA			Cups, Plates		
Stalk Market	N/A	(707) 935-8439 (415) 531-3758	www.stalkmarket.net	Containers	Bagasse	No
Sunlight Sales	11625 Overhill Dr, Aubum, CA	(530) 308-4116	www.sunlight.com	Containers, Bowls, Cups, Plates		No
Sysco Food Services	N/A	(510) 226-3426	www.sysco.com	Containers, Bowls, Cups, Plates	Corn, PLA, Paper, Bagasse	Yes
The Individual Group	5496 Lindbergh Lane Bell, CA 90201	(323) 981-2800	www.individualgroup.com	Containers, Bowls, Cups, Plates	Paper	No
Three Bridges Trading	N/A	(415) 609-7362	www.threebridgestrading.com	Containers, Bowls, Cups, Plates	Bagasse	No
Trade Supplies	N/A	(323) 581-3250 x:236	www.tradesuppliesinc.com	Cereplast & Nature Biodegradable		Yes
Tree Cycle	24555 Conifer Dr, Huson, MT	(406) 626-0200	www.treecycle.com	Containers, Bowls, Cups, Plates	Paper, Bagasse, Corn, PLA coated.	No
United Natural Foods Inc	1101 Sunset Blvd, Rocklin, CA	(916) 625-4100 (800) 679-8735	www.unfi.com	N/A		No
US Food Service	N/A	(925) 606-3585	www.usfoodservice.com	Containers, Bowls, Cups, Plates	Corn fibers, Bagasse, PLA coated paper.	
WorldCentric Store	195 C Page Mill Rd, Palo Alto, CA	(650) 283-3797	www.worldcentric.org	Containers, Bowls, Cups, Plates	Bagasse, PLA, Potato	No

Note: this table is for reference only – it is not intended to be exhaustive, and is accurate at the time of publication of this report. Please verify information directly with the vendors listed.

Appendix C:
ISD Purchasing Policy

Title:		Contents:	P-1050
PURCHASE OF ENVIRONMENTALLY PREFERABLE PRODUCTS (GREEN PURCHASING)		Submitted By:	Purchasing Division
		Approved By:	Purchasing Agent
Effective Date: 06-14-07	Supersedes No.: P-1000	Page No.	1 of 7

Purpose

Los Angeles County is a very large consumer of goods and services and the purchasing decisions of our employees and contractors can positively or negatively affect the environment. By including environmental considerations in our procurement decisions, along with our traditional concerns with price, performance and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, and conserve natural resources. The purpose of this document is to establish the framework for establishing an environmentally based purchasing program for Los Angeles County.

Board Policy

On January 16, 2007, the Board of Supervisors adopted a Countywide Policy instructing that all County departments to implement the County's Energy and Environmental Programs for energy conservation and environmental stewardship (See Board of Supervisors Policy No. 3.045, Energy and Environmental Policy). To implement the County's "green" initiatives, County departments will be tasked to:

- Institute practices that reduce waste by increasing product efficiency and effectiveness;
- Purchase products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable, and to
- Purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from sustainable harvested forests.

To meet the Board's policy objectives, we must develop and implement procedures for the procurement of environmentally preferable (or "green)" and energy efficient products and services.

Purchasing objectives will include acquisitions that:

- Conserve natural resources;
- Minimize environmental impacts such as pollution and use of water and energy;
- Eliminate or reduce toxics that create hazards to workers and our community;
- Support strong recycling markets;
- Reduce materials that are put into landfills;
- Increase the use and availability of environmentally preferable products that protect the environment;
- Encourage manufacturers and vendors to reduce environmental impacts in their production and distribution systems; and
- Create a model for successfully purchasing environmentally preferable products that encourages other purchasers in our community to adopt similar goals.

In coordination with the County's Environment and Energy Team, ISD's Purchasing Division will have overall responsibility for this program. This will include establishing appropriate standards for green purchasing, assessing cost effectiveness and making recommendations related to acquisition strategies and maintaining data and issuing reports related to the County's progress in environmental purchasing. These areas are further detailed in the attached procedures.

PURCHASING PROCEDURES AND STANDARDS

Defining Environmentally Preferable Products

All products for which the United States Environmental Protection Agency (U.S. EPA) has established minimum recycled content standard guidelines, such as those for printing paper, office paper, janitorial supplies, construction, landscaping, miscellaneous, and non-paper office products, shall contain the highest post-consumer content practicable, but no less than the minimum recycled content standards established by the U.S. EPA Guidelines.

In general, environmentally preferable products and services are those that would have a reduced effect on human health and the environment when compared with competing products and services. More specifically, this comparison would include consideration of all phases of the product's life cycle, including raw materials acquisition, production, manufacturing, packaging, distribution, operation, maintenance and disposal, including potential for reuse or ability to be recycled.

In practice, the objective is to purchase products that have reduced environmental impact because of the way they are made, used, transported, stored, packaged and disposed of. It means looking for products that do not harm human health, are less polluting and that minimize waste, maximize use of bio-based or recycled materials, conserve energy and water, and reduce the consumption or disposal of hazardous materials. When determining whether a product is environmentally preferable, the following standards should be considered:

✓ Biobased	✓ Made from renewable materials
✓ Biodegradable	✓ Compostable
✓ Carcinogen-free	✓ Low toxicity
✓ Bioaccumulative toxic (PBT)-free	✓ Recycled content, Reusable
✓ Chlorofluorocarbon (CFC)-free	✓ Reduced packaging, Refurbished
✓ Heavy metal free (i.e., no lead, mercury, cadmium)	✓ Reduced greenhouse gas emission
✓ Low volatile organic compound (VOC) content	✓ Energy, Resource and Water efficient

Purchasing Environmentally Preferable Products

County Purchasing Agent Responsibilities – General

In coordination with the County's Environment and Energy Team, ISD's Purchasing Division will be responsible for:

- Working with other governmental purchasing groups and agencies, such as U.S. Communities, NACO and CSAC to determine appropriate standards for green purchasing.

- Assigning central purchasing staff to evaluate various green products and to provide guidance and assistant to County departments.

- Developing and implementing a 5-year plan to phase in various categories of purchased goods under the green program umbrella. Relative easy to implement items (e.g., paper, cleaning supplies, etc.) will be implemented very early in the program.

- Heading up teams to evaluate various types of products where the cost differential is great and/or the products are not considered good substitutes.

- Assessing and making recommendations on the use of price preferences.

- Maintaining data and issuing reports related to the County's progress in environmental purchasing.

- Establishing central purchasing agreements with a catalogue of environmentally friendly and energy efficient products and to modify our existing agreement data bases for the easy identification of green products.

In establishing countywide commodity agreements, the County's Purchasing Agent will specify the requirement for environmentally preferable products where applicable, and will evaluate product alternatives where appropriate. This evaluation would include: consideration of total costs expected during the time a product is owned, including, but not limited to, acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime of a product(s) as compared to other alternatives.

In the evaluation and/or award process:

- ✓ Products that are durable, long lasting, reusable or refillable will be preferred whenever feasible.

- ✓ Wherever possible, suppliers of electronic equipment, including but not limited to computers, monitors, printers, and copiers, shall be requested to take back equipment for reuse or environmentally safe recycling when the County discards or replaces such equipment; and

- ✓ All suppliers shall be required, where applicable, to use and recycle packaging material used for product delivery.

County Department Responsibility – General

Under the delegated authority of the County Purchasing Agent, departmental buyers are responsible to evaluate short-term and long-term costs in comparing product alternatives. Through Purchasing Agent agreements, Departments shall be required to:

1. Purchase only Recycled-Content Bond Paper in accordance with the Board of Supervisors instructions of September 7, 1999 instructions to all Departments.

2. Purchase Energy Efficient products in order to conserve electrical power, reduce peak power consumption, lower energy costs, provide market leadership and support energy-efficient purchasing by County government.

3. Review and use "green" product alternatives in County and other authorize government agreements provided on-line at: http://www.uscommunities.org/gpa/green/grSupplier.htm

Remanufactured Products

The County shall purchase remanufactured products such as laser toner cartridges, furniture, and equipment whenever practicable, but without reducing safety, quality or effectiveness.

Energy and Water Conserving Equipment

Where applicable, energy-efficient equipment shall be purchased with the most up-to-date energy efficiency functions. This includes, but is not limited to, high efficiency space heating systems and high efficiency space cooling equipment.

When practicable, the County shall replace inefficient lighting with energy efficient equipment.

Energy Star®

Energy Star is a labeling program derived from a partnership between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). All products displaying the Energy Star label meet Federal Energy Management Program (FEMP) standards. Typically, this means that labeled products are in the top 25 percent of all similar products when ranked by energy efficiency, and use 25 to 50 percent less energy than their traditional counterparts.

Solicitation for Equipment or Products

Wherever practicable, when equipment or product purchases where FEMP recommended standards or Energy Star labeled products are available, County departments and agencies are expected to include an Energy-efficiency requirement component to their solicitation to purchase those products that meet the recommended standards. Examples of these products include computers, monitors, printers, photocopiers and facsimile machines.

Sample Solicitation Language

"Notice to Bidder: In line with the County policy for the procurement of energy-efficient equipment and products, preference will be given to those products that meet the Federal Energy Management Program (FEMP) standards or possess an Energy Star® label."

For energy consuming products where there are no FEMP recommended criteria or Energy Star label, departments must consider the purchase products that conserve electrical power and/or natural gas to the maximum extent possible, based on minimum life-cycle costs.

Cost Analysis

Even where energy-efficient products have a higher purchase price than their less efficient counterparts, these products usually save money because they use less energy, often have a longer life, and typically incur less maintenance cost.

These savings, such as from lower energy bills, are achieved throughout the entire lifetime of the product. Thus, when deciding how much money an Energy Star labeled product will save, it is necessary to consider both initial cost (the purchase price) and the costs that will be incurred throughout the life of the product (such as energy and maintenance costs). This is known as Life Cycle Cost.

A listing of Energy Star approved products, as well as the formula for determining Life Cycle Cost is available through the ISD Purchasing web page or by access through the following Internet address:

http://yosemite1.epa.gov/estar/consumers.nsf/content/officeequipment.htm

Benefits

The benefits of purchasing Energy Stat labeled and FEMP recommended products include:

- Reduced energy costs without compromising quality or performance
- Significant return on investment
- Extended product life and decreased maintenance

Products purchased by the County, and for which the U. S. EPA Energy Star certification is available shall meet Energy Star certification, when practicable. When Energy Star labels are not available, energy efficient products shall be purchased that are in the upper 25% of energy efficiency as designated by the Federal Energy Management Program.

The County shall purchase water-saving products whenever practicable.

Note: Nothing contained in this policy shall be construed as requiring a department to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price in a reasonable period of time.

Landscaping

Workers and contractors providing landscaping services for the County shall be encouraged to employ sustainable landscape management practices whenever possible, including, but not limited to, integrated pest management, grass-cycling, drip irrigation, composting, and procurement and use of mulch and compost that give preference to those produced from regionally generated plant debris and/or food waste programs.

Plants should be selected to minimize waste by choosing species that are appropriate to the micro-climate species that can grow to their natural size in the space allotted them and perennials rather than annuals for color. Native and drought-tolerant plants that require no or minimal watering once established are preferred.

Hardscapes and landscape structures constructed of recycled content materials are encouraged.

Toxins and Pollutants

To the extent practicable, no cleaning or disinfecting products (i.e. for janitorial use) shall contain ingredients that are carcinogens, mutagens, or teratogens. These include chemicals listed by the U.S. EPA or the National Institute for Occupational Safety and Health on the Toxics Release Inventory and those listed under Proposition 65 by the California Office of Environmental Health Hazard Assessment.

When maintaining buildings, the County shall use the lowest amount of VOCs (volatile organic compounds), highest recycled content, and low or no formaldehyde when purchasing materials such as paint, carpeting, adhesives, furniture and casework.

The County shall reduce or eliminate its use of products that contribute to the formation of dioxins and furans. This includes, but is not limited to:

- Purchasing paper, paper products, and janitorial paper products that are unbleached or that are processed without chlorine or chlorine derivatives, whenever possible.
- Eliminating the purchase of products that use polyvinyl chloride (PVC) such as, but not limited to, office binders, furniture and flooring, whenever practicable.

Agricultural Bio-Based Products

Paper, paper products and construction products made from non-wood, plant-based contents such as agricultural crops and residues are encouraged whenever practicable.

Balancing Environmentally Considerations with Performance, Availability and Financial Cost

Los Angeles County is committed to procuring environmentally preferable goods and services wherever they meet performance standards and requirements of the County at a competitive cost. Nothing in this policy shall be construed as requiring a purchaser or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price or in a reasonable period of time.

However, when comparing product costs, the County does not focus exclusively on the quoted vendor pricing but also the costs over the life of the product, which includes the initial cost along with maintenance, operating, insurance, disposal, recycle or replacement, and potential liability costs. Examining life cycle costs will save money by ensuring we are quantifying the total cost of ownership before making purchasing decisions.

Conservation and Waste Reduction

Wherever practicable and cost-effective, departments are responsible to institute practices that reduce waste and result in the purchase of fewer products without reducing safety or workplace quality.

Examples would include:

- ✓ Using electronic communication instead of printed,
- ✓ Using double-sided photocopying and printing,
- ✓ Using washable and reusable dishes and utensils,
- ✓ Using rechargeable batteries,
- ✓ Streamlining and computerizing forms,
- ✓ Using "on-demand" printing of documents and reports as they are needed,
- ✓ Leasing long-life products when service agreements support maintenance and repair rather than new purchases,
- ✓ Choosing durable products rather than disposable,
- ✓ Buying in bulk, when storage and operations exist to support it,
- ✓ Re-using products such as, but not limited to, file folders, storage boxes, office supplies, and furnishings.

Departmental Responsibilities

Every County department is responsible to ensure that their respective employees, contractors, and vendors are fully aware and supportive of the County's initiative to purchase environmentally preferable goods and services. To this end, departments are responsible to exercise due diligence in their procurement decisions as well procurements made by their contractors and consultants, promoting the purchase and use environmentally preferable products whenever cost effective, and to the extent practicable for all work completed on behalf of Los Angeles County.

Appendix D:
County Department Survey Results

Appendix D: Summary Responses From County Departments

A questionnaire regarding the EPS usage and the use of alternatives was sent to all departments and agencies in the County of Los Angeles.

Nineteen departments do not purchase or use EPS food service products; 12 noted some use of EPS food service products, and nine departments' did not respond to the questionnaire.

Of the 12 departments and agencies that use EPS products:

- Five responded that they use EPS in a minimal nature with two responding that EPS will be phased out by the end of 2007 or early 2008.
- Five departments and agencies use significant amount of EPS products with two responding that they are currently under contractual obligation requiring the purchase of EPS food service products.
- Two departments and agencies indicated modest use of EPS products.

The following is a copy of the EPS questionnaire.

Expanded Polystyrene Food Service Products:
Questionnaire for County Departments

Contact Person: _____ Department: _____

Phone: _____ Fax: _____

E-mail: _____

1. Does your Department purchase or use expanded polystyrene food service products? If so, please list the facilities and briefly describe the current usage, including annual consumption figures:

2. Do any of the programs listed above have specific requirements for food service containers, such as the ability to manage hot/cold food, microwave safe, etc.?

3. Does your Department have contracts or agreements **requiring** the purchase of expanded polystyrene food service products? If so, when do those contracts end, and do they allow for any revisions prior to expiration?

4. If environmentally friendly alternative products were twice as expensive as expanded polystyrene food service products, how much of an impact would this ban have on your Department?

5. Other than cost, do you foresee any problems transitioning your Department away from the use of expanded polystyrene food service products?

	Q1: Purchase /Utilize EPS	Q2: Have Specific Requirement for EPS	Q3: Have Contracts Which Utilize EPS	Q4: Significant Budget Impact Under Worst Case Scenario	Q5: Concerns With Impact of Ban
Agricultural Commission/W&M	NO	NO	NO	NO	NO
Alternate Public Defender	NO	N/A	NO	N/A	NO
Animal Care and Control	NO	N/A	NO	N/A	N/A
Auditor - Controller	NO	N/A	NO	NO	NO
Beaches and Harbors	NO	N/A	NO	NO	NO
Board of Supervisors	NO	NO	NO	NO	NO
Chief Executive Office	YES	Must be Microwavable/Hold Hot Food/Liquids	NO	NO	NO
Chief Information Office	NO	N/A	N/A	N/A	NO
Child Support Services	Minimal	No	No	N/A	No
Children and Family Services	NO	N/A	N/A	N/A	N/A
Commission on Human Relations	YES	Must be Microwavable/Hold Hot Food/Liquids	NO	YES	NO
Community and Senior Services	YES	Hold Hot Food/Liquids	YES	YES	NO
Community Development Commission.	NO	NO	NO	NO	NO
Consumer Affairs	Minimal	NO	NO	Minimal	NO
Coroner	N/A	N/A	N/A	N/A	N/A
County Counsel	NO	N/A	NO	N/A	N/A
District Attorney	N/A		N/A	N/A	
Fire Department	YES	Must Hold Hot Food/Liquids	NO	Minimal	NO
Health Services	YES	NO	NO	NO	NO
Human Resources	NO	N/A	NO	NO	
Internal Services Department	YES	N/A	N/A	N/A	N/A
Mental Health	Minimal	Must be Microwavable	NO	NO	NO
Military and Veterans Affairs	N/A	N/A	N/A	N/A	N/A
Museum of Art	NO	NO	NO	NO	NO
Natural History Museum	NO	NO	NO	N/A	NO
Office of Affirmative Action Compliance	NO	NO	NO	N/A	N/A
Office of Public Safety	NO	NO	NO	N/A	NO
Office of Small Business	N/A	N/A	N/A	N/A	N/A
Office of the Assessor	Minimal	Must be Microwavable/Hold Hot Food/Liquids	NO	NO	NO
Ombudsman	YES	NO	NO	NO	NO
Parks and Recreation	YES	N/A	N/A	NO	NO

	Q1: Purchase /Utilize EPS	Q2: Have Specific Requirement for EPS	Q3: Have Contracts Which Utilize EPS	Q4: Significant Budget Impact Under Worst Case Scenario	Q5: Concerns With Impact of Ban
Probation	NO	NO	NO	YES	NO
Public Defender	NO	NO	NO	NO	NO
Public Health	N/A	N/A	N/A	N/A	N/A
Public Library	N/A	N/A	N/A	N/A	N/A
Public and Social Services	N/A	N/A	N/A	N/A	N/A
Public Works	Minimal	NO	NO	NO	NO
Regional Planning	NO	NO	NO	N/A	N/A
Registrar-Recorder/County Clerk	NO	N/A	NO	N/A	N/A
Sheriff	YES	Must be Microwavable/Hold Hot Food/Liquids	YES	YES	NO
Treasurer And Tax Collector	NO	N/A	N/A	N/A	N/A

Appendix E:
Plastic Recycling Chart

Many plastic containers manufactured today are stamped with symbols as an aid to recycling. These stamps identify the type of resin or resin mix in the plastic container. Only two types, PET and HDPE, are commonly collected for recycling.

Symbol	Acronym	Full name and uses
	PET	Polyethylene terephthalate - Fizzy drink bottles and frozen ready meal packages.
	HDPE	High-density polyethylene - Milk and washing-up liquid bottles
	PVC	Polyvinyl chloride - Food trays, cling film, bottles for squash, mineral water and shampoo.
	LDPE	Low density polyethylene - Carrier bags and bin liners.
	PP	Polypropylene - Margarine tubs, microwave-able meal trays.
	PS	Polystyrene - Yoghurt pots, foam meat or fish trays, hamburger boxes and egg cartons, vending cups, plastic cutlery, protective packaging for electronic goods and toys.
	Other	Any other plastics that do not fall into any of the above categories. For example melamine, often used in plastic plates and cups.

Appendix F:
Banning of EPS
Food Containers

Brochures

What Resources are Available for Environmentally Acceptable Food Packaging?

National Distributors*

1. **Bay Brokerage Company, Inc.**
   1776 Laurel Street
   San Carlos, CA
   (650) 595-1189

2. **Excellent Packaging and Supply**
   3220 Blume Drive, Suite 111
   Richmond, CA
   (510) 243-9501 or (800) 317-2737
   www.excellentpackaging.

3. **Good Humans**
   500 Soquel Ave. Suite F
   Santa Cruz, CA
   (866) 420-4208
   www.goodhumans.com

4. **Green Earth Office Supply**
   PO Box 719
   Redwood Estates, CA
   (800) 327-8449
   www.greenearthofficesupply.com

5. **GSD Packaging**
   1854 East Home
   Fresno, CA
   (559) 441-1181
   West@GSDPackaging.com
   www.gsdpackaging.com

6. **Moresco Distributing**
   1120 Holm Road
   Petaluma, California
   (707) 843-0254
   tomc@moresco.biz
   www.moresco.biz

7. **PAMS**
   3361 Pomona Blvd.
   Pomona, CA
   (909) 869-7267
   www.pamsinc.com

8. **Sunlight Sales**
   11625 Overhill Drive
   Auburn, CA
   (530) 308-4116
   www.sunlight.com

9. **Tree Cycle**
   21555 Conifer Drive
   Huson, MT
   (406) 626-0200
   www.treecycle.com

10. **United Natural Foods Inc.**
    1101 Sunset Boulevard
    Rocklin, CA
    (916) 625-4100 or (800) 679-8735
    www.unfi.com

11. **World Centric**
    195 C Page Mill Rd
    Palo Alto, CA
    (650) 28303797
    www.worldcentric.org

12. **Smart and Final**
    22631 Ventura Blvd.
    Woodland Hills, CA
    (818) 225-9590
    www.smartandfinal.com

Internet Distributors*

1. **Brenmarco Retail Store Supplier**
   (800) 783-7759
   www.brenmarco.com

2. **Green Home**
   (877) 282-6400
   www.greenhome.com

3. **GreenLine**
   (800) 641-1117
   www.greenlinepaper.com

4. **Recycline**
   www.recycline.com

5. **Shop Natural**
   www.shopnatural.com

6. **Simply Biodegradable**
   (509) 764-0233
   www.simplybiodegradable.com

7. **US Food Service**
   www.usfoodservice.com

* The City of Calabasas does not endorse the listed distributors. They are listed here as available resources.

CITY of CALABASAS

Environmentally Acceptable Food Packaging Ordinance

Ordinance No. 2007-233

Frequently Asked Questions

Starts March 31, 2008
Section 8.18.030

Public Works Department
Environmental Services Division
(818) 878-4225
www.cityofcalabasas.com/environment

What Does the Ordinance Say?

1. Retail food establishments and nonprofit food providers in Calabasas may *no longer* use food packaging made of expanded polystyrene, known more commonly by the trademark name Styrofoam™, for prepared food, and must use environmentally acceptable food packaging.

Compliance must begin by March 31, 2008

2. What does "environmentally acceptable food packaging" mean?

Packaging that is:

- **Returnable**- food or beverage containers are capable of being returned to the distributor for reuse

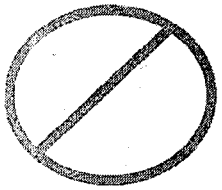
- **Recyclable**- material that can be recycled, salvaged, composted, processed, or marketed by any means other than land-filling or burning. Recyclable materials include plastic which can be feasibly recycled by a municipal recycling program in California. Such plastics have recycling symbols #1 through #5 and include PET or PETE, HDPE, LDPE, and PP plastics. Polystyrene bears the recycling symbol #6, but is not feasibly recyclable in Calabasas.

- **Biodegradable**- capable of being broken down by micro-organisms in the environment into non-toxic components within a reasonably short time after disposal

- **Degradable**- capable of being broken down through natural processes via natural organisms or ultraviolet light.

3. What does "prepared food" mean?
Food or beverages, which are served, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared for consumption by a retail consumer on the premises of a retail food establishment. Does not include raw, butchered meats, fish and/or poultry.

4. **Annual Certification**
After March 31, 2007 each retail food establishment in Calabasas must report their awareness of and compliance to the ordinance on the first business day of each calendar year via a written certification, signed under penalty of perjury, that is provided by the City.



What Alternatives to Polystyrene Foam are Available?

- Uncoated paper
- Coated paper
- Cardboard
- Other plastics
- Aluminum foil food service ware
- "Bioplastics" made from corn, potato, and other plant materials
- Bagasse made from plant pulp, e.g. sugar cane

What Resources are Available for Environmentally Acceptable Food Packaging?

Local Distributors*

1. **American Paper and Plastics CO.**
Marty Flacks (local sales rep.)
(626) 444-0000
10511 E. Valley Blvd.
El Monte, CA 91731
www.appinc.com

2. **CaterGreen!**
Allan and Herminia
(323) 663-7747
Catergreen@eco-now.net
www.catergreen.com

3. Smart and Final
22631 Ventura Blvd.
Woodland Hills, CA 91364
(818) 225-9590
www.smartandfinal.com

Ordinance NO. 2007-233 (EPS Ban)
Certification

I, _____, owner/manager of
(Print Name)

_____
(Business name)

located at _____

certify that I received a copy of the City of Calabasas Ordinance No. 2007-233 and I am aware of the requirements that this ordinance entails and will comply to the ordinance by March 31, 2008.

_____ _____
(Signature) (Date)

Public Works Department - Environmental Services Division
26135 Mureau Road, Calabasas, CA 91302-3172
T: 818.878.4225 F: 818.878.4205
www.cityofcalabasas.com/environment

Non-Recyclable Plastic Disposable Food Service Container Ban

Frequently Asked Questions

City of
Santa Monica®

Background:

On January 9, 2007 the Santa Monica City Council unanimously voted to ban the use of non-recyclable plastic disposable food service containers within Santa Monica: SMMC: 2216 (pdf)

When does the ordinance take effect?

- **February 9, 2007** for all city facilities and operations, city managed concessions, and city sponsored and permitted events.
- **February 9, 2008** for all food service providers in Santa Monica.

Why did the City of Santa Monica ban non-recyclable plastic and polystyrene?

Expanded polystyrene and non-recyclable plastic together make up the largest amount of waste that ends up on Santa Monica's beaches. At the annual Coastal Cleanup Day, 10,000 volunteers came out to clean the beaches and in three hours picked up over 75,000 lbs. of trash, most of which was identified as Styrofoam® and plastic. This plastic waste causes significant environmental damage to the beach and marine environment. It can also harm marine animals and birds who mistake it for food. Polystyrene is made from crude oil and when improperly disposed persists in the environment for hundreds of years. By banning these types of disposable plastic food containers, the ordinance will help to reduce the amount of these materials that pollute Santa Monica's beaches and the bay.

What are the banned food service containers?

Non-recyclable plastic refers to any plastic which cannot be feasibly recycled by a municipal recycling program in the State of California. This specifically refers to expanded polystyrene (also known as Styrofoam®) and clear or rigid polystyrene, both of which are marked with the symbol #6 on the bottom.

This ban applies to single-use disposable containers intended for serving or transporting prepared, ready-to-eat food or beverages. Examples include cups, plates, trays, bowls, and hinged or lidded containers. This ordinance does not apply to single-use disposable food service items which are not used as food containers, such as straws, cup lids and utensils.

Who must comply with this ordinance?

This ordinance prohibits all food providers in the City of Santa Monica from dispensing prepared food in non-recyclable plastic food service containers. "Food provider" means any establishment, located or providing food within the City of Santa Monica, which provides prepared food for public consumption on or off its premises and includes without limitation any store, shop, sales outlet, restaurant, delicatessen, grocery store, super market, catering truck or vehicle, or any other person who provides prepared food, and any organization, group, or individual that regularly provides food as a part of its service. The ordinance also covers food containers purchased by city staff; food programs sponsored by the city, city-sponsored events, city-managed concessions and city-permitted events.

What are the penalties for non-compliance?

- The 1st violation results in a written warning.
- The 2nd violation results in a fine up to $100.
- The 3rd violation & any following violations result in a daily fine up to $250.

What types of containers are allowed under the ordinance?

- Aluminum
- Coated and uncoated paper
- Recyclable plastics
- Biodegradable products made from corn, sugar cane, bamboo, and other rapidly renewable resources.

What is the heat tolerance of biodegradable products?

When determining what type of biodegradable product line to use, it is important to know whether you will be serving hot or cold food. For example, a popular corn-based container has a heat tolerance of around 110 degrees F and is excellent for salads, sandwiches and cold drinks, but not hot foods or drinks. Specific brands of biodegradable food containers are designed for hot foods and drinks. Before you choose a container, be sure to ask for information on heat tolerance and other product specifications.

Where do I find acceptable food service containers?

Contact or visit your sales representative to inquire about acceptable containers. If they do not carry them, request that they begin doing so. As a service to the community, the city will provide a list of suppliers of acceptable food service containers. See list of local food service container distributors at www.smepd.org/container.

Who can I call for questions about where to find alternative products, ordinance enforcement, exemptions, recycling technical assistance or community presentations?

Contact Josephine Miller of the Environmental Programs Division at 310-458-4925 or josephine.miller@smgov.net.

City of Santa Monica
Environmental Programs Division
200 Santa Monica Pier
Santa Monica, CA 90401
Phone: 310.458.2213
Email: environment@smgov.net
Website: www.smepd.org/container

City of Santa Monica

City of Santa Monica
www.smepd.org

Success Stories

Leaders in Providing Sustainable Take Out Food Services for Santa Monica

Santa Monica is famous for excellent food, and now, excellent take-out food containers. With over 600 food related businesses, Santa Monica now stands with several other leading cities in banning Styrofoam® and other non-recyclable plastics due to their inability to breakdown in the marine environment.

Eat well and protect our valuable natural resources—support the leaders, and become a leader. To learn more, visit us on the web at www.smepd.org/container.

City of Santa Monica
Environmental Programs Division
200 Santa Monica Pier
Santa Monica, CA 90401
Phone: 310.458.4925
Email: environment@smgov.net
Website: www.smepd.org/container

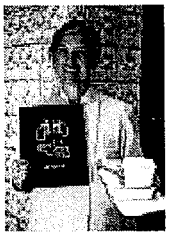
City of Santa Monica

Container Successes

Zabies
Compostable Bioplastic Clear Cups made from Corn
Compostable Paper Cups w/ Cardboard Sleeve
Compostable Paper To-Go Containers

Library AleHouse
Compostable Cutlery made from Potato Starch
Compostable Bagasse To-Go Containers with lids or clamshells made from sugarcane fiber waste.
Compostable Bioplastic Clear Cups made from Corn

Border Grill
Compostable Paper Cups & To-Go Containers with Corn based lining
Compostable Bioplastic Clear Cups and To-Go Clamshell & Sauce Containers made from Corn
Compostable Cutlery made from Potato Starch



Ocean Park Café
Aluminum To-Go Containers with cardboard lids
Compostable Paper Cups
Compostable Paper Cups w/ Cardboard Sleeves

Santa Monica Airport
Compostable Coated Paper Cups
Compostable Paper Plates & Bowls
Compostable 100% Post-Consumer Waste Napkins

City of Santa Monica

Distributors of Biodegradable and Recyclable

Food Service Containers

Advisory: All of the companies below sell biodegradable and recyclable products as well as non-recyclable products. Be sure to specify "biodegradable and recyclable."
If you would like to suggest additions or corrections, please call the Environmental Programs Division at 310.458.4925 or visit us at **www.smepd.org/container**.

Distributors	Website	Contact	Phone
American Paper and Plastics, Inc.	www.appinc.com	Steven Silver	310.409.5076
BioCorp	www.biocorpaavc.com	Kelly Lehrmann	800.348.8348
Biodegradable Food Service LLC	www.biodegradablefoodservice.com	Kevin Duffy	541.593.2191
BioPak-GSD Packaging	www.gsdpackaging.com	Jim Keitges	559.441.1181
California Recycles, Inc.	www.californiarecycles.com	Elham Ebiza	310.478.3001 x101
Cater Green	www.catergreen.com	Allan Haskell	323.663.7747
EarthSmart LLC	www.earthsmartllc.com	Wes Cradock	480.206.4513
Eco Products	www.ecoproducts.com	Order online	303.449.1876
Excellent Packaging and Supply	www.excellentpackaging.com	Steve Levine	800.317.2737
Giancola Brothers, Inc.	giancolabrosinc@gmail.com	Jennifer Giancola	310-450-1464
Green Earth Office Supply	http://store.yahoo.com/greenearthofficesupply/	Order online	800.327.8449
Green Wave by Western Pacific Assoc.	http://greenwave.us.com/	Joe Battung	562.208.6695
The Individual Group	www.theindgrp.com	Richard Zionts	323.981.2800
Pak West Paper	www.pakwest.com	Chris Smith	714.481.3846
Paper Company	www.thepapercompany.net	Mike Madden	714.444.2171
P & R Paper Supply	www.prpaper.com/	Dionne Marie Stewart	951.316.7800
Recyclaholics	http://recyclaholics.com/foodservice.htm	Order online	612.521.5667
Renewable Products	http://www.renewable-products.com/	Bob Pondo	612.521.5667
Smart and Final - Venice	www.smartandfinal.com	Enrique Perez	310.392.4954
Smart and Final - W. Los Angeles	www.smartandfinal.com	Evan Howell	310.473.0344
Stalk Market	www.stalkmarket.net	Order online	503.295.4977
Sysco Food Service	www.sysco.com	Phillip Waring	800.800.1199 x3039
Trade Supplies	www.tradesuppliesinc.com	Aaron Fishbain	323.581.3250
US Food	www.usfood.com	Miriam Corver	800.379.5633 x6147
WorldCentric Store	www.worldcentric.org/store/index.htm	Order online	650.283.3797

Disclaimer: Reference to any commercial business, organization, or product does not constitute nor imply endorsement or recommendation.

Last updated 11.27.07

Food service ware contributes to litter and blight on our streets, in our creeks throughout Oakland, and in the Bay.

According to the EPA, FDA and OSHA, many food service ware products made from polystyrene foam may be hazardous to our health.

To make our city cleaner and healthier and help our community achieve zero waste, Oakland has passed a disposable food packaging ordinance.

This information is provided by the City of Oakland Public Works Agency Recycling Program
(510) 238-SAVE (7283)
www.oaklandrecycles.com

中文: (510) 614-5495
Español : (510) 614-5496
Tiếng Việt : (510) 614-5497

OAKLAND RECYCLES

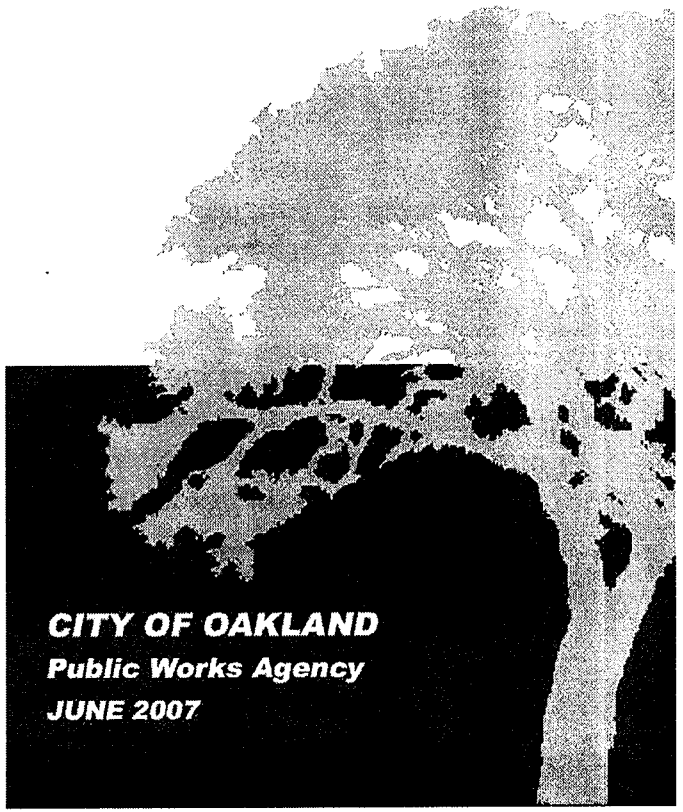
City of Oakland
Public Works Agency
Environmental Services Division
250 Frank Ogawa Plaza; Suite 5301
Oakland, CA 94612

OAKLAND'S GREENWARE ORDINANCE

Polystrene Foam Food Service Ware
Oakland Municipal Code section 8.07

A Guide For

Oakland Food Vendors



CITY OF OAKLAND
Public Works Agency
JUNE 2007

WHAT YOU NEED TO KNOW

Effective January 1, 2007, Oakland food vendors may not use polystyrene foam (Styrofoam®) disposable foodservice ware.

In Addition, Oakland food vendors and restaurants must change to biodegradable/compostable disposable food service ware such as paper or "bioplastic", as it becomes affordable (same or lower cost).

Disposable food service ware includes all containers, bowls, plates, trays, cartons, cups, lids, straws, forks, spoons, knives and other items that are designed for one-time use that any restaurant or retail food vendor uses to serve or package food to go.

All Oakland food vendors selling prepared food, including restaurants, delis fast-food restaurants, vendors at fairs, food trucks, and all City Facilities must comply.

RESOURCES TO HELP YOU MEET CITY REQUIREMENTS

- ***Ask your current supplier about products that meet the City's new requirements for to-go containers***
- ***Visit www.oaklandgreenware.com for a list of suppliers***
- ***Call 238-SAVE with your questions about the ordinance***

FREQUENTLY ASKED QUESTIONS

What are the alternatives to polystyrene foam? *Uncoated paper, coated paper, cardboard, other plastics, aluminum foil foodservice ware, and "bio-plastics" are good alternitives.*

What are biodegradable and compostable foodservice ware products? *Uncoated paper products, coated paper products, and "bio plastics"- made from corn, potato, and other plant materials.*

Are there exceptions to these requirements? *There is no exception to the prohibition of polystyrene foam. Non-compostable and non-biodegradable products may be used if a vendor can show that no alternative exsits at the same or lower cost.*

PENALTIES

The City will investigate all reported violations. Food Vendors found in violation of the ordinance will be subject to the following fines:

1st offense = Warning
2nd offense = $100 fine
3rd offense = $200 fine
4th offense = $500 fine

OTHER TIPS

- *Allow customers to bring their own mugs when purchasing drinks.*
- *Charge a take-out fee for approved to-go containers that cost more.*
- *Use reusable dishes for dine-in customers.*

Polystyrene is made from petroleum, and it is non-renewable, non-biodegradable, and virtually non-recyclable. It ends up in land-fills, waterways and the ocean. It breaks down into smaller pieces which are often mistaken for food and ingested by marine mammals, birds and fish. The EPA, FDA and OSHA suggest that chemicals in polystyrene foam are carcinogenic and may leach into food and drink.

For questions about the ordinance, or for assistance in identifying a supplier, please call: 238-SAVE(7283) or visit www.oaklandgreenware.com

CITY OF OAKLAND

Disposable Food Service Ware
To-go containers

Frequently Asked Questions

Greenware Ordinance

STARTS JANUARY 1, 2007
Oakland Municipal Code Section 8.07

Who has to follow the Ordinance?

All Oakland food vendors selling prepared food including **restaurants**, **delis**, **fast-food establishments**, **vendors at fairs**, and **food trucks**. All **City Facilities**.

What are alternatives to polystyrene foam?

Uncoated paper, coated paper, cardboard, other plastics, aluminum foil food service ware, and "bio-plastics" are all permitted by this ordinance.

What are biodegradable and compostable food ware products?

Uncoated paper products, coated paper products, and some "bio-plastics" (made from corn, potato, and other plant materials).

What is wrong with polystyrene foam?

Made from crude oil, it is non-renewable, non-biodegradable, and virtually non-recyclable. It ends up in landfills, waterways or the ocean. It breaks down into smaller and smaller pieces which are often mistaken for food and ingested by marine mammals, birds, and fish. Medical evidence also suggests that chemicals in poly-styrene foam are carcinogenic and may leach into food or drink.

Are there exceptions to these requirements?

There is no exception to the prohibition of polystyrene foam. Non-compostable and non-biodegradable products may be used if vendor can show that no alternative exists at the same or lower cost.

What are the penalties for non-compliance?

Violations will result in fines: 1st = warning, 2nd = $100, 3rd = $200, 4th = $500
Enforcement is by the City of Oakland, not the County Health Inspector. Enforcement is complaint-driven, meaning *your customers* may notify the City of violations.

What else can my business do to reduce food service ware waste?

You can allow customers to bring their own mugs to buy drinks. In instances that food vendors wish to use a biodegradable or compostable product that is not the same or less cost than the non biodegradable or compostable alternative, a food vendor may charge a "take out fee" to cover the cost difference. You can use reusable dishes and cups instead of disposable ones for "eat-in" customers. You can use organics recycling service at your business to turn food packaging waste into compost.

How can my business get food scraps recycling?

Call the **City of Oakland Recycling Hotline** at **238-SAVE (7283)** for assistance with any of your business recycling needs.

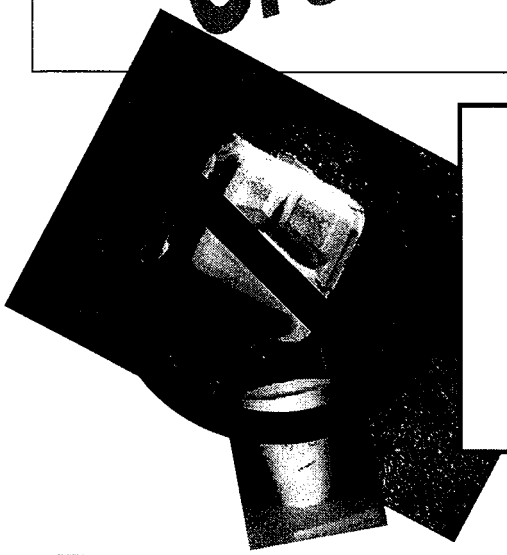
Disposable Food Service Ware
To-go containers

CITY OF OAKLAND

WHAT YOU NEED TO KNOW

Greenware Ordinance

STARTS JANUARY 1, 2007
Oakland Municipal Code Section 8.07

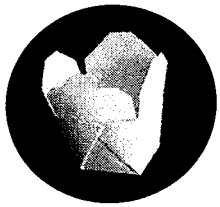


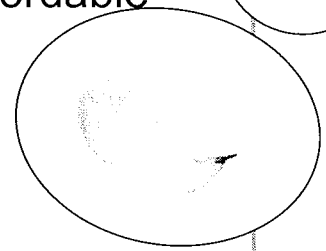
1

Oakland food vendors/restaurants may no longer use polystyrene foam (Styrofoam®) disposable food service ware.
Violations may result in fines. (See back.)

2

Oakland food vendors and restaurants must change to biodegradable/compostable disposable food service ware such as paper or "bio-plastic", as it becomes affordable (same or less cost).





Resources to Help You Meet City Requirements:

- ✓ **Ask** your **current supplier** about products that meet the City's new requirements for food service ware.
- ✓ **Call** the **City of Oakland Recycling Hotline** at **238-SAVE** (7283) for a list of biodegradable food service ware suppliers, or for any questions related to this ordinance.
- ✓ **Visit oaklandgreenware.com** for more suppliers and information.

Para recibir más información en español llame al 238-6812.
自行車道提案提出寶貴意見。如需獲得更多中文資訊，或有任何建議，請致電：238-6812。
Để biết thêm chi tiết bằng tiếng Việt về đề nhận xét gặp rắc rối, xin gọi số 238-6812.

Food service ware is a large contributor to litter, blight and waste throughout Oakland. In addition, many food service ware products made from plastic may be hazardous to our health. To make our city cleaner and healthier and help our community achieve zero waste, Oakland has passed a disposable food packaging ordinance. Similar ordinances are now being adopted across California.

See reverse for exceptions and more information.

Disposable Food Service Ware
To-go containers

DISTRIBUTOR LIST

CITY OF OAKLAND

Greenware Ordinance

STARTS JANUARY 1, 2007
Oakland Municipal Code Section 8.07

Food Vendors: Ask your distributor for compostable alternatives to foam and plastic!
Customers: Share this flyer with Oakland food vendors you patronize!

Local Distributors

Access Group
14470 Doolittle Drive,
San Leandro, CA
(510) 567-1000
www.accessgroupnca.com

C & J CO
105 Jackson Street
Oakland, CA
(510) 663-0188

Cash & Carry
400 Oak Street
Oakland, CA
(510) 251-9344

Costco
Richmond: 4801 Central Avenue
(510) 898-2003
San Leandro: 1900 Davis Street
(510) 562-6708

Excellent Packaging and Supply
3220 Blume Drive, Suite 111
Richmond, CA
(510) 243-9501 or (800) 317-2737
www.excellentpackaging.com

Jetro Cash n Carry
105 Embarcadero
Oakland, CA
(510) 628-0600

Smart & Final
901-933 Broadway
Oakland, CA
(510) 251-8221
1243 42nd Ave.
Oakland, CA
(510) 536-7494

SYSCO
(800) 877-7012

National Distributors

Bay Brokerage Company, Inc.
1776 Laurel Street
San Carlos, CA
(650) 595-1189

Good Humans
500 Soquel Ave. Suite F
Santa Cruz, CA
(866) 420-4208
www.goodhumans.com

Green Earth Office Supply
PO Box 719
Redwood Estates, CA
(800) 327-8449
www.greenearthofficesupply.com

GSD Packaging
1854 East Home
Fresno, CA
(559) 441-1181
West@GSDPackaging.com
www.gsdpackaging.com

Moresco Distributing
1120 Holm Road
Petaluma, California
(707) 843-0254
tomc@moresco.biz
www.moresco.biz

PAMS
3361 Pomona Blvd.
Pomona, CA
(909) 869-7267
www.pamsinc.com

Sunlight Sales
11625 Overhill Drive
Auburn, CA
(530) 308-4116
www.sunlight.com

Tree Cycle
21555 Conifer Drive
Huson, MT
(406) 626-0200
www.treecycle.com

United Natural Foods Inc
1101 Sunset Boulevard
Rocklin, CA
(916) 625-4100 or (800) 679-8735
www.unfi.com

World Centric
195 C Page Mill Rd
Palo Alto, CA
(650) 28303797
www.worldcentric.org

Internet Distributors

American Paper & Plastics
www.appinc.com

Brenmarco Retail Store Supplier
(800) 783-7759
www.brenmarco.com

Green Home
(877) 282-6400
www.greenhome.com

GreenLine
(800) 641-1117
www.greenlinepaper.com

Recycline
www.recycline.com

Shop Natural
www.shopnatural.com

Simply Biodegradable
(509) 764-0233
www.simplybiodegradable.com

US Food Service
www.usfoodservice.com

StopWaste.Org "Bio-Plastics" Products 5.17.06

Advisory: Check with distributors for specific prices or specifications, and feasibility of products for specific applications. If you'd like to suggest additions or corrections, please email us at partnership@stopwaste.org.

	Certification Status		Material Type			
Item	BPI-certified * Product Manufacturers	Other Product Manufacturers	PLA and/or MaterBi	Derived Starch (eg. potato)	Sugar Cane (bagasse) or other Fibre	GMO-free (Manufacturer claim)
hot cups		Sinless Buying			Sinless Buying	
cold cups	Fabrikal, Cereplast, Huhtamaki	Sinless Buying	Fabrikal, Cereplast		Huhtamaki, Sinless Buying	
cutlery	Cereplast	Earthware, Spudware, Sinless Buying	Cereplast	Earthware, Spudware	Sinless Buying	Earthware (wheat), Spudware
plates	Cereplast	Earthshell, Asean, Huhtamaki, EatItWorld, Sinless Buying	Cereplast	Earthshell	Asean, Huhtamaki, EatItWorld, Sinless Buying	
bowls	Cereplast	Earthshell, Asean, Huhtamaki, EatItWorld, Sinless Buying	Cereplast	Earthshell	Asean, Huhtamaki, EatItWorld, Sinless Buying	
to-go		Earthshell, Sinless Buying		Earthshell	Sinless Buying	
straws	Cereplast		Cereplast			
trays	BioSphere	Sinless Buying		BioSphere	Sinless Buying	
cake and pie shells		NaturesPLAstic	NaturesPLAstic			
bags	BioBag, Cereplast, EcoFilm, Farmell, Heritage, BioSak, Comp-Lete		BioBag, Cereplast, BioSak, Comp-Lete			Bio-Bag
water bottles	Biota Springs Water		Biota Springs Water			

* BPI is the Biodegradable Products Institute. They are the main U.S. certification agency for compostable products. www.bpiworld.org.

OFFICE OF THE CITY ADMINISTRATOR

SFEnvironment

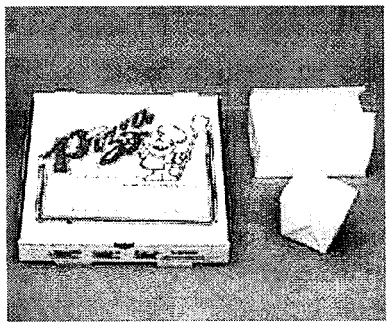
New Law Promotes Healthier San Francisco and Can Improve the Bottom-Line for Restaurants and Food Vendors

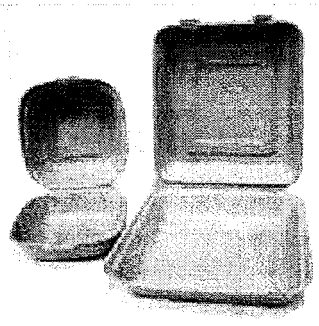
Effective June 1, 2007, food vendors and restaurants in San Francisco must use compostable or recyclable to-go containers. Polystyrene foam (Styrofoam™) disposable food service ware can no longer be used for food prepared in San Francisco.

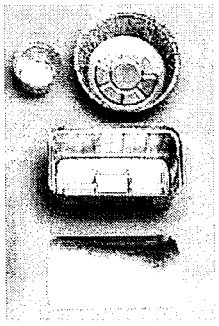
There are many food service ware alternatives that can be composted or recycled by businesses or residents that can help reduce their trash volumes and service costs. Thousands of San Francisco restaurants and other businesses are recycling and participating in the food scrap and compostables collection program and as a result are getting discounts of up to 75% off their garbage service costs. Residents also have access to composting and recycling collection services and can put compostable or recyclable food service ware in their green or blue carts.

San Francisco Department of the Environment (SF Environment) is available to assist businesses with finding suitable food service ware and can provide on-site training and assistance to participate in the recycling and food scrap and compostables collection programs.

Examples of Acceptable Food Service Ware:







For more information or to request assistance, visit **SFEnvironment.org/foodservice** or call **(415) 355-3700,** or **City's Customer Service 3-1-1**

SFEnvironment Our home. Our city. Our planet. SF Environment is a department of the City and County of San Francisco.

Printed on 100% Post Consumer Recycled Paper

What You Need To Know About New Food Service Ware Law

What are the requirements of the new food service ware law?

- San Francisco food vendors are prohibited from using polystyrene foam, otherwise known as Styrofoam™, food service ware for food prepared and served in San Francisco, with no exceptions.
- All other disposable food service ware for food prepared and served in San Francisco, must be compostable or recyclable unless there is no suitable product that is within 15% of the cost of non-compostable or non-recyclable alternatives. (There is no cost exemption for Styrofoam™).

Who has to follow the new food service ware law?

All San Francisco food vendors selling food prepared and served in San Francisco must use compostable or recyclable food service ware. Restaurants, delis, fast food establishments, vendors at fairs, food trucks, and all City facilities and contractors must follow this law.

What are the penalties for non-compliance?

Violations may result in fines: 1st time = warning, 2nd time = $100, 3rd time = $200, 4th or more time = $500. Enforcement is by the City administrator and will be in part complaint-driven, meaning your customers may notify the City of violations, by calling **(415) 554-4851**.

What is wrong with polystyrene foam (Styrofoam™)?

Made from oil, polystyrene foam is non-renewable, non-biodegradable, and non-recyclable. Polystyrene foam food service ware ends up in landfills, waterways or the ocean. It can break into pieces, which are often mistaken for food and ingested by marine animals, birds, and fish. Medical studies suggest that chemicals in polystyrene foam can cause cancer and can leach into food or drinks.

What are approved food service ware products?

Compostable products include:

- Paper or other plant fiber, such as from sugarcane, rice, or bamboo. Polyethylene film coating on paper is currently accepted, but not any foam coating.
- Corn, soy, potato or other plant starch based bio-plastics, such as "PLA" clear plastic, that are labeled as "compostable" and meet compostability standards (ASTM D6400). These products should be marked with a green band, stripe or sticker to allow compostable identification by the compostables collector and processor.

These products are described at **SFEnvironment.org/foodservice** or call **(415) 355-3700** to request product list.

Recyclable products include:

- Aluminum foil or trays and 

, 

and 

plastic containers and lids.

Where can alternative food service ware products be purchased?

Ask your current supplier about products that meet the City's new requirements. Suppliers for compostable and recyclable products can be found at **SFEnvironment.org/foodservice** or call **(415) 355-3700** to request list of suppliers.

What can you do to reduce food service ware waste?

- Allow and encourage customers to bring their own mugs or reusable to-go containers for take-out use and offer a discount when customers bring their own food service ware.
- Charge customers a fee to cover any additional costs for disposable take-out containers.
- Use reusable service ware instead of disposable ones for eat-in customers.

For more information please visit SFEnvironment.org or call (415) 355-3700, or City's Customer Service 3-1-1

SFEnvironment Our home. Our city. Our planet. SF Environment is a department of the City and County of San Francisco.

San Francisco Food Service Ware Ordinance is effective June 1, 2007.

Updated as of 5/8/2007

Compostable or Recyclable Food Service Ware Accepted in San Francisco under the Food Service Waste Reduction Ordinance

Product Categories*	Product Brands (Manufacturer)	Product Material/Resins (colors)	Meets ASTM-Standards for Compostability**	OK for Composting Collection	OK for Recycling Collection
Hinged Containers (one piece square or rectangular clamshell one or more compartments)	BagasseWare, BioCane, Bridgegate, Stalkmarket,	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO
	The Harvest Collection (Genpak)	Corn, soy, wheat and/or potato starch based bio-plastic (offwhite)	Resin must meet ASTM-Standards for compostability. Cereplast resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
	NaturesPLAstic & Natureworks PLA (Wilkinson), Nature Green PLA	Corn starch based "PLA" bio-plastic (clear)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
Lidded Containers (two piece square or rectangular one or more compartments or round tub single compartment)	BagasseWare, BioCane, Bridgegate, EATware, Stalkmarket,	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO
	NaturesPLAstic & Natureworks PLA (Wilkinson), Nature Green PLA	Corn starch based "PLA" bio-plastic (clear)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - with green label or sticker on each piece	NO
		Aluminum	NO	NO	YES
	FastPac (Sabert)	#2 (HDPE), #4 (LDPE), or #5 (PP) resin plastic (clear)	NO	NO	YES - with #2, #4 or #5 on each piece
Folded Containers (one piece square or rectangular single compartment)	Biopak, Bioplus, ChampPak, Micropail	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO
Plates or Trays (one or more compartments some with cup holders)	BagasseWare, BioCane, Chinet (Huhtamaki), EATware	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO
		Aluminum	NO	NO	YES
	The Harvest Collection (Genpak)	Corn, soy, wheat &/or potato starch based bio-plastic (offwhite)	Resin must meet ASTM-Standards for compostability. Cereplast resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO

* Categories not listed are exempted until added when available. No exceptions for polystyrene foam ban.

**Polyethylene film (not foam) coating on paper is currently accepted for composting and exempted from ASTM-Standards for compostability.

San Francisco Food Service Ware Ordinance is effective June 1, 2007. Updated as of 5/8/2007

Product Categories*	Product Brands (Manufacturer)	Product Material/Resins (colors)	Meets ASTM-Standards for Compostability**	OK for Composting Collection	OK for Recycling Collection
Bowls	BagasseWare,	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber/pulp accepted without ASTM tests.	YES	NO
	The Harvest Collection (Genpak)	Corn, soy, wheat &/or potato starch based bio-plastic (offwhite)	Resin must meet ASTM-Standards for compostability. Cereplast resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
Hot Cups	Ecotainer (International Paper)	Paper lined with corn starch "PLA" (white w/ green design)	Ecotainer certified by BPI to meet ASTM-Standards.	YES	NO
	Stalkmarket, (Huhtamaki)	Paper and/or plant fiber, such as sugarcane (bagasse), rice or bamboo (brown, white, offwhite)	Paper & plant fiber/pulp accepted without ASTM tests.	YES	NO
Cold Cups & Lids	Greenware (Fabrikal)	Corn starch based "PLA" bio-plastic (opaque, offwhite, green)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
	The Harvest Collection (Genpak)	Corn, soy, wheat &/or potato starch bio-plastic (offwhite)	Resin must meet ASTM-Standards for compostability. Cereplast resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
		#2 (HDPE), #4 (LDPE), or #5 (PP) resin plastic (clear)	NO	NO	YES - with #2, #4 or #5 on each piece
Cutlery	Nat-Ur (Cereplasst)	Corn starch based "PLA" bio-plastic (opaque, offwhite, green) or other corn, soy, wheat &/or potato starch bio-plastic (offwhite)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - if green or other distinct color from non-compostables	NO
Wraps		Paper, cellophane or other plant fiber	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO (If food soiled)
	Natureflex	Corn starch based bio-plastic (opaque, offwhite)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
		Aluminum foil		NO	YES
Straws or Stirrers		Paper or other plant fiber, such as wood stirrers	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO (If food soiled)
		Corn starch based "PLA" bio-plastic (clear, various colors)	Resin must meet ASTM-Standards for compostability. PLA resin has been certified (by BPI) to meet these standards.	YES - with green color label or sticker	NO
Napkins		Paper or other plant fiber	Paper & plant fiber accepted without testing for ASTM Standards.	YES	NO (If food soiled)

* Categories not listed are exempted until added when available. No exceptions for polystyrene foam ban.

**Polyethylene film (not foam) coating on paper is currently accepted for composting and exempted from ASTM-Standards for compostability.

Distributors of Compostable or Recyclable Food Ware

SF Environment
Our home. Our city. Our planet.
SFEnvironment.org • (415) 355-3700
A Department of the City and County of San Francisco

Distributors	Contact & Phone	Email	Website	deli containers, pie shells, salad bowls	to-go containers, clamshells	hot cups / lids	cold cups & lids	cutlery	plates	bowls	straws	trays	bags
Access Group	Chris Matson (510) 567-1000	CMatson@accessgroupnca.com	http://naturesplastic.wilkinsonindustries.com/	PLA	PLA		PLA		B,P	B,P		A,PLA	YES
American Paper & Plastic Inc	Larry Morris (877) 255-7198 (626) 444-0000	larry@appinc.com, info@appinc.com	www.appinc.com	A, PLA	A, PLA	P, EP	PLA	C	P,B	P, B	C	A, P	YES
Biodegradable FoodService	Kevin Duffy (541) 593-2191 (503)810-5707	kevinD@bdfs.net	www.bdfs.net	B, PLA	PLA, B	P,B, PO, BA	PLA, BA	PO, BA	B, BA	B, BA		B, PO, BA	YES
BiRite	Robert Durkin 415-656-0187 x331	durnkin@BiRite.com	www.BiRite.com	P, PLA	P, PLA	P	PLA	yes	P	P			
Cash & Carry	Mario Gavidia (415) 836-9296	cc570@smartandfinal.com	http://www.smartandfinal.com/	P, PLA	PLA, P	P			P	P		P	
Cereplast	Michael Muchin (310) 676-5000	mmuchin@cereplast.com	www.cereplast.com	C	C		C	PLA	C	C			
Costco	Shirley P. Cen (415) 626-4388	w144mbr@costco.com	www.costco.com	P	P	P	P		P	P			
Eco-Products	Luke Vernon (303) 449-1876	lvernon@ecoproducts.com	biodegradablestore.com	PLA, B	PLA, B	P, EP	PLA	PO, C	P, B,	B		B, P	YES
Excellent Packaging and Supply	Allen King (800) 317-2737	allen@excellentpackaging.com	www.excellentpackaging.com	PLA, B, P	PLA, B	B, EP	PLA	PO	B	B, EP	PLA	B	YES
Huhtamaki	Sally Chouprov (650) 344-3605	sally.chouprov@us.huhtamaki.com	www.us.huhtamaki.com	P	P	P	P		P	P		P	
Genpak	Michael Muchin (310) 676-5000	mmuchin@cereplast.com	harvestcollection.genpak.com/products.cfm	C	C		C		C	C			
Green Earth Office Supply	Andrea Wilson (800) 327-8449	andrea@greenearthofficesupply.com	greenearthofficesupply.stores.yahoo.net/furniture.html	P, B, PLA	P, B,PLA	B, EP	PLA	PO, C	P, B	B	PLA	B, PLA,	YES

PLA=clear plastic corn based, C=non-clear plastic corn, wheat or rice based, B=bagasse (sugarcane fiber), BA= bamboo fiber, PO=non-clear plastic potato based, P=paper fiber (poly-coated OK), EP= PLA coated paper cup (Ecocontainer)

Distributors	Contact & Phone	Email	Website	deli containers, pie shells, salad bowls	to-go containers, clamshells	hot cups / lids	cold cups & lids	cutlery	plates	bowls	straws	trays	bags
Green is Green, Inc	Anders (415) 215-8553	anders@greenisgreeninc.com	http://www.greenisgreeninc.com/GiG-product%20list.pdf	B, PLA	B, PLA	B	PLA	PO	B	B	C	B	YES
Maple Trade Corporation	Sam Ha (650) 296-8998	sales@mapletradecorp.com	www.mapletradecorp.com	plastic #5	plastic #5								
Pan Pacific Export & Import	Ali Akbar (510) 582-4893 (510) 582-4817	ali710412@aol.com	www.waterfromfiji.com (click Protect the Earth)	B	B		B		B	B		B	
Prime Link Solutions	Alan Ko (650) 375-1398	alan@primelinksolution.com		B	B				B	B		B	
PPT Brothers	Raymond Tam (415) 430-7030	tpm48@hotmail.com		plastic #5	plastic #5								
Rainbow Grocery	Laura Kemp (415) 863-0620		rainbowgrocery.org				B	C	B	B			YES
Restaurant Depot	(415) 920-2888	manager.045@jetrord.com	www.restaurantdepot.com	P, PLA	P, PLA	P	P		P	P			
S.F. Supply Master	(415) 642-0700	shah@sfsupplymaster.com		P	P	P, EP	PLA		P, B	P, B		P	
Simply Biodegradable	Brad Price (509)764-0233 (509)910-1430	brad@simplybiodegradable.com	www.simplybiodegradable.com	B, PLA	B, PLA	B	PLA	C	B	B		B	YES
Smart and Final	(800) 894-0511		http://www.smartandfinal.com	PLA	PLA	P	PLA		P, PO				
Sysco Food Services	Jeremy Jacobs (510) 226.3425	Jacobs.Jeremy@sfo.sysco.com	http://www.sysco.com/	C, P, PLA	B, P,PLA	P, EP, B	P, PLA	P, C, PO	P, B	P, B	PLA	P, B	YES
Three Bridges Trading	(415) 609-7362	ThreeBridgesTrading@gmail.com		B	B				B	B		B	
US Foodservice	Michael J. Cala John Herrera (925) 606-3585	michael.cala@usfood.com john.herrera@usfood.com	www.usfoodservice.com	C, B	C, B	EP	C	C	B	B			YES
WorldCentric Store	(650) 283-3797	bio@worldcentric.org	www.worldcentric.org/store	B, PLA	B, PLA	B	PLA	PO	B	B	YES	B	YES

References to any commecial business, organization, or product does not constitute nor imply endoresement. updated 5/15/07

PLA=clear plastic corn based, C=non-clear plastic corn, wheat or rice based, B=bagasse (sugarcane fiber), BA= bamboo fiber, PO=non-clear plastic potato based, P=paper fiber (poly-coated OK), EP= PLA coated paper cup (Ecocontainer)

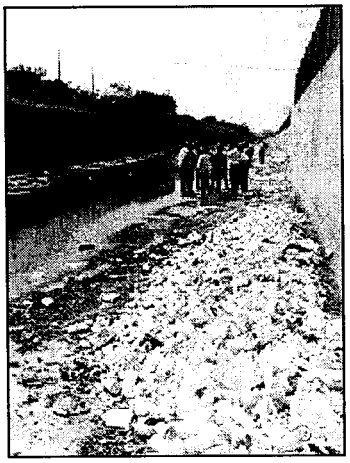
December 2004, #4

Green News

Helping Ventura County employees make environmentally responsible choices

The New Styrofoam Ban – What It Means For You

On October 12, 2004, the Ventura County Board of Supervisors adopted a resolution establishing a ban on the use of expandable polystyrene food containers (EPS) , known by the trade name "Styrofoam". EPS product usage by vendors, franchisees, lessees, contractors and other commercial food and beverage purveyors was banned at the County Harbor, Parks, and at the Government Center. Also, EPS products are no longer usable at special events held at County facilities which are sponsored or co-sponsored by the County.

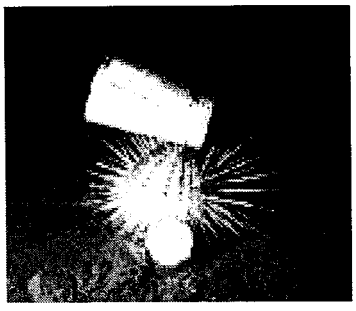


By enacting this EPS product usage ban, the Board expressed its desire to continue to exercise environmental leadership and stewardship in Ventura County by helping to reduce the amount of EPS that enters our waste stream, and thereby also helping to reduce the amount of EPS debris that enters local storm drains, watersheds, and our coastal environment.

Prohibited items include, but are not limited to, EPS food containers, bowls, plates, trays, cartons, and cups which are not intended for reuse, on or in which food or beverages are placed, and/or packages. In addition, Section 3 of the Board's resolution states, "All individuals, groups, businesses, non-governmental, and other governmental entities are strongly encouraged (emphasis added) to assist in preserving the environment by ceasing to purchase and use expandable polystyrene food service products".

The Board's adoption of this resolution has provided the Environmental and Energy Resources Division (EERD) of the Water & Sanitation Department, Public Works Agency, with a unique opportunity to identify, compare and evaluate relevant operational, performance, and financial, factors associated with the use of environmentally preferable alternatives to Styrofoam. EERD has been gathering information on product samples, pricing, and performance data regarding sustainable manufacturing processes used in the production of a variety of EPS product alternatives in order to assist the above mentioned County departments comply with the Board's recent EPS product usage ban. Our goal is to provide a list of alternative products, with appropriate performance and cost comparison information, so that vendors may choose the most environmentally preferable and economically viable product alternatives to EPS. And armed with that information, we hope that you, their customers, will encourage vendors to do so.

Many people think of paper or plastic as the only substitute for Styrofoam cups, plates and bowls, but some new and exciting products made from some rather surprising materials are becoming increasingly common in the marketplace. Here is some information to help you understand the different product options and how they affect the environment:



STYROFOAM or EPS, is commonly used as a disposable food container due to its light weight, insulating properties, and low price. EPS is a petroleum based product and will not ever biodegrade. EPS is made from crude oil, a non-renewable resource. Like all plastics, every EPS item we've ever produced still exists. It does, though, break down into small pieces, which are mistaken for food and ingested by marine animals. This causes reduced appetite and nutrient adsorption, often leading to slow starvation. According to the Alguita Research Institute, the ratio of plastics to plankton (a major food source for many marine animals) in the oceans is currently 6:1 and increasing.

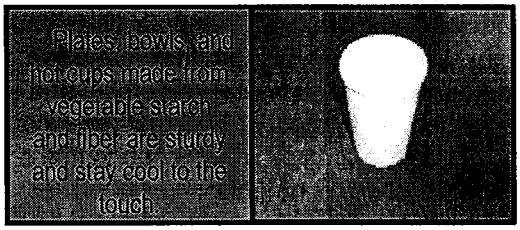
Continued on page 2

Continued from page 1

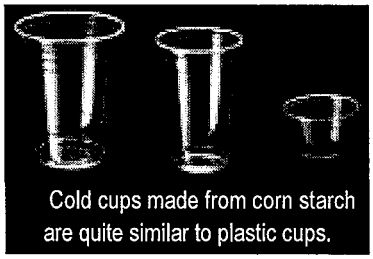
PAPER products do not have insulation properties. The majority are made from virgin paper and do not contain any recycled content. Most of the products, particularly the cups, contain a poly coating (petroleum based) for insulation and rigidity. Paper products without the coating tend to be rather droopy and, when filled with hot beverages, the cups are too hot to hold. Poly-coated products prevent the paper from breaking down or being recycled in municipal recycling programs, are not considered "recyclable" and consequently are sent to local landfills for disposal. Large amounts of water, as well as chemicals and energy are used in the production of paper products.

PLASTIC items are made from non-renewable resources: crude oil. Extraction and refining pollute the environment. Chemicals are used and produced during manufacturing. In addition, excessive water is used for cooling and large amounts of energy are consumed during manufacturing. Plastic products are not biodegradable nor compostable and do not break down. They do not have insulating properties.

BIOPRODUCTS are made from renewable natural ingredients – often byproducts of other manufacturing processes. These include products made from corn starch or from the pulp that remains after juice is extracted from sugar cane. The most promising item we've seen, in terms of price and performance, is made from a combination of bamboo, tapioca and water. These products are all completely biodegradable and can be composted. Many local schools use these in their "Zero Waste" lunch programs. The items are combined with food waste and composted for the gardens.



EERD has developed a price sheet that will assist departments in comparing their current costs for food service items. Generally, costs for bioproducts run about the same as prices for Styrofoam and coated paper prices on most food service items. Costs for non-styrofoam hot cups tend to be higher.


Cold cups made from corn starch are quite similar to plastic cups.

The proper evaluation of the "cost-benefits" of any product only starts with its purchase price. The full "life-cycle" cost of any product includes the cost of the raw materials needed to begin producing the product, the costs associated with the production processes, the disposal cost of the item, which often becomes harmful and/or toxic to nature during its disposal, and finally, the larger socioeconomic costs of choosing non-sustainable materials for such products. Initially, the short term personal economic gain associated with the use of EPS products may appear advantageous to us, but after appropriate reflection, we hope that you consider carefully that the full life-cycle costs of selecting a non-sustainable product can continue for generations after its initial use.

While EPS or Styrofoam is the subject of the Board's recent ban, we hope that each of us will consider taking affirmative steps to reduce the use of all disposable, rigid plastic containers. This will help cut down the amount of trash that goes to our local landfills, as well as improve our local environment. Green Seal, a non-profit organization, has done some research on rigid quick serve food packaging that you may find informative and useful.

Switching from petroleum based Styrofoam or coated paper to a more environmentally friendly product may increase the price of your coffee or meal by a few pennies. But it just doesn't make sense for us to use packaging lasting hundreds of years, when its functional use is 15 minutes or less. As County employees, we hope that you become familiar with the provisions of the Board's EPS product usage ban, and do everything you can, as customers of such products, to help support the County's vendors as they take affirmative steps to transition to more environmentally preferable product alternatives.

We encourage County employees who choose to purchase coffee either at the government center, AM/PM, Starbucks or other locations to bring their own cup. Remember that Starbucks and AM/PM offer a reduced "refill" price. And, whenever possible, please try and use conventional food service ware, rather than disposable items.

We also hope that staff in all County Departments and Agency will take this opportunity to review the products they use as part of performing their daily work, or even in their own break rooms, carefully. Every department scenario is different and unique and we encourage you to call EERD for technical assistance in evaluating your situation so that we can help offer the best alternatives to meet your special needs.

Should you have any questions regarding EERD's technical assistance programs to County Agencies and Departments for this EPS product usage bin and or other aspects of our EP3 efforts, please feel free to contact Gerard Kapuscik, Manager, Resources & Information Section, EERD, directly at 289-3106, or via e-mail: "gerard.kapuscik@mail.co.ventura.ca.us."

Attachment C:

Heal the Bay Collects Millionth Pound of Trash, September 20, 2008 press release.

Heal the Bay

For Immediate Release

HEAL THE BAY COLLECTS MILLIONTH POUND OF TRASH

12,000 citizens mobilize at 71 L.A. sites for Coastal Cleanup Day

SANTA MONICA, Calif. (September 20, 2008) – Coastal Cleanup Day volunteers in Los Angeles County today collected their cumulative 1 millionth pound of ocean-bound debris since 1990's inaugural event.

Some 12,262 community members scoured beaches, parks, alleys, creeks, highways and stormdrains from 9 a.m. to noon at 71 sites throughout the county. City crews, families, local businesses, faith-based organizations, schools and youth sports teams removed 181,000 pounds of debris and recyclables from L.A. County watersheds.

Urban runoff from more than 200 storm drains flowing out to Santa Monica and San Pedro bays causes the vast majority of local ocean pollution. By removing tons of debris from beaches and inland neighborhoods, cleanup participants enhance quality of life, protect marine animals and bolster the regional economy.

This year's haul more than doubled last year's total of 73,722 pounds of debris. The increased total is due to more aggressive public works efforts coordinated in concert with Coastal Cleanup Day to clear bulky, heavy items from alleyways and street corners. Heal the Bay's CCD campaigns have captured a cumulative 1.17 million pounds of trash since 1990.

Cigarette butts and Styrofoam fragments are the most frequently found items at cleanups. For example, volunteers at Echo Park today collected and counted 5,017 cigarette butts, totaling some five pounds of harmful waste.

Sites covered the entire county this year, from Tujunga to Long Beach, Compton to Malibu. SCUBA dive teams canvassed the Santa Monica and Redondo Beach piers, while a flotilla of kayakers removed trash from Marina del Rey.

Among the unusual items found this year: a home pregnancy test with a negative reading (Venice Beach), a plastic bag filled with chicken parts and images of the Virgin of Guadalupe (Ken Malloy Park), washing machine parts (Malaga Cove), shotgun shells (Zuma Beach) and a submerged Razor scooter (Redondo Beach Pier dive team)

-more -

Heal the Bay

For Immediate Release

2008 L.A. County Cleanup Totals — California Coastal Cleanup Day

Volunteers	Pounds of Trash	Pounds of Recyclables
12,262	179,144	2,106

"The value of bringing communities together for the common goal of bettering the environment is greater than the cleanups themselves," said Mark Gold, president of Heal the Bay. "It's extremely gratifying to see thousands of people learn through volunteering how they can clean up environmental blight in neighborhoods, waterways and on the beach throughout the year."

"Each year, the Los Angeles County Flood Control District captures more than 300 tons of trash before it flows out into the ocean. Yet, these efforts alone are not enough to keep our beaches or waterways free of litter and other pollutants," said Mark Pestrella, assistant deputy director of the Los Angeles County Department of Public Works, one of the event's main sponsors. "So we applaud the efforts of the thousands of who are making a difference."

Downloadable images of today's cleanup available at www.healthebay.org/photos/ccd

About Coastal Cleanup Day
Coastal Cleanup Day in Los Angeles is held in partnership with the California Coastal Commission and sponsored by the Los Angeles County Department of Public Works and Union Bank. Recognized by 50 states and nearly 60 countries, the day has been recognized as the world's biggest 24-hour volunteer event.

About Heal the Bay
Heal the Bay is a nonprofit environmental organization dedicated to making Southern California coastal waters and watersheds safe, healthy and clean for people and marine life.

About the Los Angeles County Flood Control District
The Los Angeles County Flood Control District maintains approximately 500 miles of open channel, 2,800 miles of underground storm drain and 120,000 catch basins. The district's stormwater program includes multifaceted public education efforts as well as extensive structural improvements. Visit lawatersheds.org for information.

Contact: Matthew King, Heal the Bay, (310) 850-1145

###

Attachment D:

Working our Way Upstream: A Snapshot of Land-Based Contributions of Plastic and Other Trash to Coastal Waters and Beaches of Southern California.

WORKING OUR WAY UPSTREAM: A SNAPSHOT OF LAND-BASED CONTRIBUTIONS OF PLASTIC AND OTHER TRASH TO COASTAL WATERS AND BEACHES OF SOUTHERN CALIFORNIA

C.J. Moore, G.L. Lattin, A.F. Zellers

Algalita Marine Research Foundation, 148 N. Marina Drive, Long Beach, CA 90803, USA

Introduction

The most abundant type of debris impacting coastal beaches in Southern California's Orange County is pre-production plastic pellets, the plastic industry's principal feedstock. Hard plastic objects and pieces are over a hundred times less common but weigh one and a half times as much as the pellets[1]. The presence of pre and post consumer plastics in the marine environment and on beaches is not only a Southern California phenomenon. "The literature on marine debris leaves no doubt that plastics make-up most of the marine litter worldwide."[2] Murray Gregory showed in 1989 that plastic debris can be found throughout the southwest Pacific, with high densities of plastic in surface waters north of New Zealand, and abundant plastic pellets on New Zealand beaches adjacent to manufacturing centers.[3] Algalita Marine Research Foundation (AMRF) has documented land based sources of plastic and debris in neuston samples from the North Pacific Central Gyre[4] (NPCG) as well as along the Southern California Coast.[5] Plastic debris has also been shown to occur at subsurface depths of 10m and 30m in the NPCG,[6] Southern California coastal waters, and near the bottom of the sea floor off Ballona Creek.[7]

Most studies of marine debris have focused on easily visible and identifiable plastic objects. The studies by AMRF and Southern California Coastal Water Research Project (SCCWRP), however, have shown that plastic fragments less than 5mm have a mass that is 30% of the mass of the associated zooplankton in the NPCG. In near coastal waters off the San Gabriel River, the mass of plastic less than 5 mm was found to be 60% of the mass of the associated zooplankton.[7]

Policies in California have been established to restrict trash and plastic greater than 5 mm in size through the process of regulating Total Maximum Daily Loads (TMDLs). In order to quantify debris not subject to regulation by TMDLS, this study analyzed plastic trash between 1 and 5mm in size as well as that >5mm from two Southern California Rivers; the Los Angeles River and the San Gabriel River. The goal of this study was to answer the following questions:

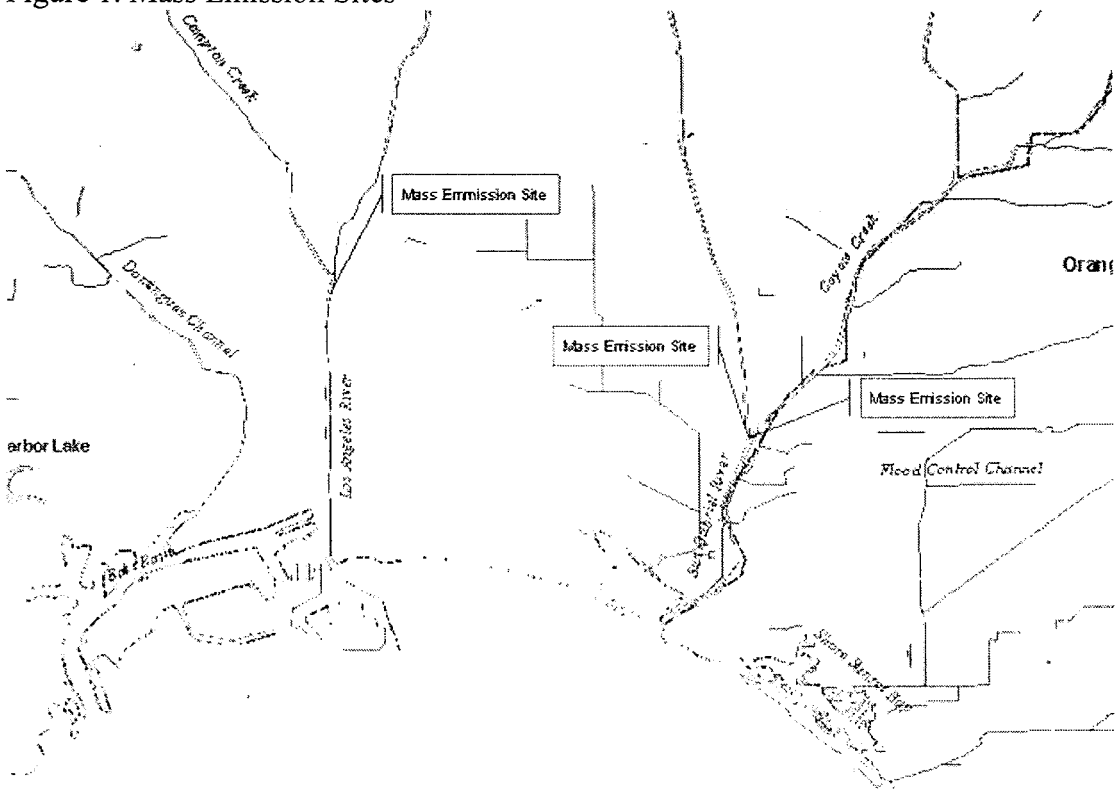
1) What are the amounts of different types of debris flowing down the rivers to the sea?
2) What are the quantities of debris in two size classes (1-4.75mm and >4.75mm) flowing down the rivers to the sea?
3) What is the weight of the debris flowing down the rivers to the sea?
4) What differences in the above quantities are observed in dry vs wet conditions?

Methods

Monitoring sites were selected in each watershed that represent a point at which all materials coming down the river from the watershed have to pass before reaching the ocean. Such sites are known as "mass emission" sites. Each was also chosen because it had access for sampling, and was above the area of tidal influence.

In the Los Angeles River one mass emission site was adequate, however, in the San Gabriel River two mass emission sites were necessary. One was located on the San Gabriel River and the other on Coyote Creek (see Fig. 1). These two sites are slightly upstream from where the Creek and the River merge. The reason for having two sites is that after they merge, they are subject to tidal influence.

Figure 1. Mass Emission Sites



The mass emission sites were sampled during both a dry and a wet period. The dry period was considered to be at least two weeks without 0.25" of rain, after which the dry period sample could be taken. The wet period samples were taken within 24 hours of a 0.25" rainfall. At each site grab samples were collected at the middle and edge of the channel, and at the surface and depth. For both wet and dry weather sampling, surface samples were collected at the center of the river using a manta trawl (see Table 1). Surface samples were also collected at the river/bank interface, and in laminar flow near the mid channel (Nov. 22 only) using two

different sized hand nets. All nets used had less than a 1mm mesh. Mid-depth to bottom samples were collected using a heavy streambed sampler. A large crane was used to lower the manta net and the streambed sampler for sampling. During the high flow of the wet period, the use of a crane was not possible, instead, a heavily weighted rectangular net was dropped from an upstream bridge nearby, allowed to extend to the length of the rope, then pulled to the side of the river for the collection of the sample. The hand nets were again used along the side of the river/bank interface. Table 1 summarizes the characteristics of our collection devices.

Table 1. Collection Device Characteristics

Collection Device	Handnets	Manta Trawl	Streambed	Rectangular net
Net Aperture Dimensions (m)	.46 x .25 .43 x .22	.9 x .15	.15 x .15	.46 x .25
Mesh Size (mm)	.800 .500	.333	.333	.333
Usage	Surface Edge	Surface Middle	Bottom Middle	Surface Middle Subsurface Bottom(mostly)

Flow rate was determined by using a General Oceanics flowmeter, or the time and distance method of a floating object. The original sampling time was 15 minutes; however, due to fouling of the net and flowmeter by algae and debris in the Spring samples, some deployment times were as short as 30 seconds. Three sample replicates were collected with each device. All sampling times and devices were normalized to obtain count or weight per cubic meter of river water.

All samples were taken to the AMRF Lab and analyzed. The samples were sorted wet. The large debris was sorted out first and placed in the appropriate category, either natural, plastic, or manmade items. A dissecting scope was used to sort out the rest of the smaller plastic and manmade items from the natural debris. Tyler sieves were then used to size class the small plastic items (4.75mm, 2.8mm, 1.0mm). The sieved items were oven dried at 65° C. Further sorting separated the plastic into types (fragments, foams, pellets, line, and films). Each type was counted, weighed, and recorded.

After each sample was sorted, the density or load of plastic per cubic meter of river water was determined by dividing the quantity of plastic (count or mass) collected by the product of the flow rate of the river, the area of the opening of the sampling device and the length of time the device was deployed. The three replicate samples were then averaged for that sampling device.

Wet period samples were collected first (November 22 and December 28, 2004) at all three sites. Dry period samples were collected on April 11, 2005.

Results

Results are shown in the following tables for the counts and weights of debris by their size class and type on each of the three sample dates.

Tables 2 and 3 present our mass emission density findings by size class for the three sampling sites. Data is presented for count density (pieces/m^3), and weight density (g/m^3), with the indicated collection method.

Tables 4 and 5 present our mass emission density findings by type of plastic debris.

Tables 6-9 show estimates for a one-day (24 hr) total of each debris category using flow data taken from available Flood Control Agency river-flow totals for that date.

The total count density of particles in the Los Angeles River between 1 and 4.75mm in size, collected on 11-22-04 from all sampling devices was 12,933 pieces/m^3, while particles and whole objects greater than 4.75 mm from all sampling devices was 820/m^3. The highest count density from any sampling device used in the Los Angeles River was on 11-22-04 with the hand net in laminar flow near mid-channel at 12,652 pieces/m^3.

The total count density of particles in the San Gabriel River, including the Coyote Creek tributary, between 1 and 4.75mm in size, collected on 11-22-04 from all sampling devices was 411 pieces/m^3, while particles and whole objects greater than 4.75 mm from all sampling devices was 125/m^3. The highest count density from any sampling device used in the San Gabriel River or its Coyote Creek tributary was on 11-22-04 with the manta net; 171 pieces/m^3.

Table 2. Total Count Density (number/m^3)

	Coyote Creek		San Gabriel River		Los Angeles River	
	1 - 4.75 mm	>4.75 mm	1 - 4.75 mm	>4.75 mm	1 - 4.75 mm	>4.75 mm
November 22, 2004 (wet)						
Handnet	74	10	61	76	271	42
Manta	< 1	< 1	153	18	9	< 1
Streambed	< 1	< 1	123	21	< 1	< 1
Handnet Laminar	--	--	--	--	12652	777
December 28, 2004 (wet)						
Handnet	14	2	29	4	35	4
Thrownet	4	< 1	4	< 1	1	< 1
April 11, 2005 (dry)						
Handnet	2	< 1	< 1	0	22	22
Manta	5	< 1	<1	0	0	< 1
Streambed	< 1	0	0	0	<1	< 1

The highest weight density for any river sampled was in the San Gabriel River on 11-22-04, with the manta net at 81 g/m^3. The handnet data for the same date and location was half as much, and the laminar net on the LA River was 56 g/m^3.

Table 3. Total Weight Density (g/m^3)

	Coyote Creek		San Gabriel River		Los Angeles River	
	1 - 4.75 mm	>4.75 mm	1 - 4.75 mm	>4.75 mm	1 - 4.75 mm	>4.75 mm
November 22, 2004 (wet)						
Handnet	< 1	2	< 1	40	< 1	< 1
Manta	< 1	< 1	< 1	81	< 1	< 1
Streambed	< 1	2	< 1	< 1	< 1	< 1
Handnet Laminar	--	--	--	--	43	13
December 28, 2004 (wet)						
Handnet	< 1	< 1	< 1	1	< 1	1
Thrownet	< 1	< 1	< 1	< 1	< 1	< 1
April 11, 2005 (dry)						
Handnet	< 1	< 1	< 1	0	< 1	1
Manta	< 1	< 1	< 1	< 1	< 1	< 1
Streambed	< 1	0	0	0	0	< 1

Table 4 presents the total count density by material type in each river, and Table 5 presents the total weight density by type in each river. The Los Angeles River in November had the greatest number of particles, with foam as the most abundant material. Foamed plastics were also the most abundant particles in the San Gabriel River on that date.

Table 4. Total Count Density (number/m^3) by Type

Coyote Creek							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.04	53.00	10.82	0.00	10.38	10.42	84.66
December 28, 2004	0.19	12.24	2.47	1.86	1.75	1.79	20.30
April 11, 2005	0.02	0.23	7.09	0.11	0.00	0.03	7.48
San Gabriel River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	17.95	177.24	208.26	0.00	11.91	36.32	451.68
December 28, 2004	0.68	19.48	9.71	3.14	0.84	3.75	37.60
April 11, 2005	0.00	0.12	0.37	0.00	0.00	0.00	0.48
Los Angeles River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.00	823.59	11,410.15	1,459.03	23.50	35.48	13,751.75
December 28, 2004	0.56	5.57	28.06	4.33	0.36	1.51	40.39
April 11, 2005	0.00	0.31	23.00	0.00	0.02	22.52	45.85

Table 5. Total Weight Density (g/m^3) by Type

Coyote Creek							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	1.72	0.06	0.01	0.00	0.00	2.11	3.89
December 28, 2004	0.40	0.15	0.00	0.04	0.00	0.01	0.61
April 11, 2005	0.00	0.01	0.01	0.00	0.00	0.00	0.02
San Gabriel River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	118.75	0.29	1.99	0.00	0.00	0.03	121.07
December 28, 2004	0.41	0.84	0.11	0.07	0.00	0.00	1.45
April 11, 2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.00	9.73	14.92	31.91	0.00	0.15	56.71
December 28, 2004	0.32	0.72	0.25	0.11	0.00	0.09	1.48
April 11, 2005	0.00	0.00	0.01	0.00	0.00	0.97	0.97

Pellets were found in both rivers, and were the second most abundant material found after expanded polystyrene in the LA River. Small plastics, 1-4.75mm diam. were the most common debris item in this study, constituting approximately 80% of all plastics sampled, but were outweighed 6 to1 by debris >4.75 mm in diameter.

Discussion

California policy defines trash as debris that is trapped by a 5 mm mesh screen (Trash TMDL). Our data confirms the abundance of plastic debris greater than 5 mm; however, our data shows that plastic particles less than 5 mm in size are far more abundant. The most common plastics found were bits of foamed polystyrene (commonly but incorrectly called Styrofoam, which is a patented insulation made by Dow Chemical Co.), followed by pre-production plastic pellets, hard plastic fragments, thin films, line, and whole items. Our findings indicate that there is a significant amount of plastic debris, which, due to its size, is not subject to regulation under current TMDLs for trash, passing our sampling stations and discharging to the estuaries.

Abundant plastic debris was found in both rivers, during wet and dry periods. The first wet period sampling in November 2004 was after a couple of rain events had moved through the area, so a lot of debris that had been collecting in the rivers since the last notable rain had already washed down the river. Also, the samples were not taken at the crest of each river's flood stage, so our estimates likely underestimate the actual storm water loading of plastic debris. The dry period sample was taken after the highest annual rainfall in over 100 years, which was the second highest annual rainfall in recorded history for this area. Again, a lot of debris had passed through the rivers before samples were taken, and there was considerable loading from the masses of filamentous algae that proliferated and broke loose along the river's course, filling sampling nets quickly and making debris separation and quantification difficult. Short deployment times may have allowed nets to miss debris present in the rivers. Nevertheless, there were substantial amounts of plastic debris in both rivers during each of the sampling events, including the Spring sampling when flow was low and algae abundant.

The highest total count density was found on the Los Angeles River on November 22, 2004, with 13,752 pieces collected in our samples. Based on data furnished by the Los Angeles Department of Public Works, the mean flow for 24 hours on the LA River on November 22, 2004 was 354,592 cubic meters near where our samples were collected. Extrapolation from our collected samples would likely underestimate the total count of debris since our sampling devices collected from a small proportion of the total river cross section. Applying the total flow to our average collected debris counts per cubic meter on that day yields the data set in Table 6. Applying the same flow total to our average weight density yields the weights for debris listed in Table 7. It is unlikely that these tables exaggerate the actual totals. With more systematic and comprehensive monitoring it should be possible to obtain a fairly complete picture of how much debris is being transported by the rivers. Such data could form a baseline to support decisions by policy makers regarding how to reduce trash and plastic entering our rivers and estuaries. Unless measures are taken to control debris less than 5 mm in diameter, billions of plastic particles per day will make their way to the marine ecosystem, where they exist in all strata of the water column[7], have been observed to be readily ingested by a wide variety of marine invertebrates[8], firmly embed themselves in the tissue of filter feeding organisms[4], and appear in the stomach contents of many species of marine fishes and birds[2].

Table 6. Average Count (number * 10^4) by Size Class in 24 hours

	Coyote Creek		San Gabirel River		Los Angeles River		Total
	1.0 - 4.75mm	>4.75 mm	1.0 - 4.75mm	>4.75 mm	1.0 - 4.75mm	>4.75 mm	
November 22, 2004	499.39	70.04	5,166.51	1,749.84	106,058.73	15,847.86	129392.37
December 28, 2004	15208.93	2133.07	2,389.07	331.97	74,830.33	8,314.48	103207.85
April 11, 2005	140.66	3.46	42.72	7.96	330.10	319.70	844.60
Total	15848.99	2206.56	7598.31	2089.76	181219.16	24482.04	233444.82

Table 7. Average Weight Density (kg) by Size Class in 24 hours

	Coyote Creek		San Gabirel River		Los Angeles River		Total
	1.0 - 4.75mm	>4.75 mm	1.0 - 4.75mm	>4.75 mm	1.0 - 4.75mm	>4.75 mm	
November 22, 2004	4.19	257.61	18.54	18,520.06	3,851.29	1,176.51	23828.20
December 28, 2004	789.35	4403.75	97.36	949.54	3,360.31	27,187.99	36788.30
April 11, 2005	3.35	0.35	0.01	0.00	0.96	136.54	141.21
Total	796.89	4661.71	115.91	19469.60	7212.57	28501.03	60757.71

Table 8. 24 Hour Average Count (N * 10^4) estimate by type.

Coyote Creek							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.27	356.48	72.78	0.00	69.85	70.06	569.43
December 28, 2004	163.91	10,451.03	2,106.26	1,591.23	1,497.28	1,532.29	17,342.00
April 11, 2005	0.26	3.94	120.51	18.90	0.00	0.51	144.12
San Gabriel River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	274.87	2,714.01	3,188.94	0.00	182.45	556.07	6,916.35
December 28, 2004	49.29	1,410.02	702.84	226.90	60.43	271.55	2,721.04
April 11, 2005	0.00	38.58	12.10	0.00	0.00	0.00	50.68
Los Angeles River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.02	7,300.96	101,148.72	12,934.01	208.32	314.56	121,906.59
December 28, 2004	1,148.64	11,463.78	57,759.41	8,915.36	743.12	3,114.51	83,144.81
April 11, 2005	0.00	4.42	324.82	0.00	2.53	318.03	649.80

Tabel 9. 24 Hour Average Weight (kg) estimate by type..

Coyote Creek							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	115.9	3.7	0.3	0.0	0.1	141.8	261.8
December 28, 2004	3,425.0	1,315.3	17.1	350.2	17.1	68.3	5,193.1
April 11, 2005	0.4	1.3	1.4	0.5	0.0	0.0	3.7
San Gabriel River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	18,183.4	45.2	304.7	0.0	0.5	4.9	18,538.6
December 28, 2004	298.2	608.0	82.5	54.2	0.6	3.5	1,046.9
April 11, 2005	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Los Angeles River							
	Whole Items	Fragments	Foam	Pellets	Line	Film	Total
November 22, 2004	0.0	862.5	1,322.6	2,828.8	0.3	13.6	5,027.8
December 28, 2004	6,690.1	14,759.4	5,125.7	2,202.6	0.2	1,770.3	30,548.3
April 11, 2005	0.0	0.1	0.9	0.0	0.0	136.4	137.5

References:

[1]S.L. Moore, D. Gregorio, M. Carreon, M.K. Leecaster, and S.B. Weisberg. 2001. Composition and Distribution of Beach Debris in Orange County, California. *Marine Pollution Bulletin* 42:241-245.

[2]Derraik, J.G.B., The pollution of the marine environment by plastic debris: a review. 2002, *Marine Pollution Bulletin* 44:842-852

[3]M.R. Gregory,1990. In R.S. Shomura and M.L. Godfrey (editors), Proceedings of the Second International Conference on Marine Debris, 2-7 April 1989, Honolulu, Hawaii. U.S. Department of Commerce, NOAA Technical Memorandum NMFS, NOAA-TM-NMFS-SWFSC-154. 55-84.

[4]C.J. Moore, S.L. Moore, M. K. Leecaster, and S.B. Weisberg. 2001. A comparison of plastic and plankton in the North Pacific central gyre. *Marine Pollution Bulletin* 42:1297-1300.

[5]C.J. Moore, S.L. Moore, S.B. Weisberg, G. Lattin and A. Zellers. 2002. A comparison of neustonic plastic and zooplankton abundance in southern California's coastal waters. *Marine Pollution Bulletin* 44:1035-1038.

[6]C.J. Moore, G.L. Lattin, and A. Zellers. 2005. Density of Plastic Particles found in zooplankton trawls from Coastal Waters of California to the North Pacific Central Gyre. Proceedings of the *Plastic Debris Rivers to Sea Conference,* September 8, 2005

[7] G.L. Lattin, C.J. Moore, S.L. Moore, S.B. Weisberg, and A. Zellers. 2004. A comparison of neustonic plastic and zooplankton at different depths near the southern California shore. *Marine Pollution Bulletin* 49:291-294.

[8] Thompson, Richard C., et al, Lost at Sea: Where Is All the Plastic?, *Science*, Vol. 304, 2004, 843

Attachment E:

Californians Against Waste Database of Expanded Polystyrene Legislation

WORLD-WIDE FOOD SERVICE EXPANDED POLYSTYRENE (EPS) LEGISLATION

City/Region	State/Country	MO/YR Enacted	MO/YR Effective	Type	PROHIBITION DESCRIPTION Detail	Penalty	Source
UNITED STATES							
Alameda	CA	Jan-08	Jul-08	City Facilities and sponsored events - Restaurants and Retail food vendors	Requirement that all take-out food packaging be compostable/recyclable; contains affordability clause		http://www.ci.alameda.ca.us/news/0712_styro_ban_considered.html
Aliso Viejo	CA	Jun-08		City Facilities and sponsored events	Prohibits City from purchasing/acquiring EPS food service products in City buildings and City sponsored events; contracting parties should prevent use of EPS food packaging	Administrative citations	http://ci.aliso-viejo.ca.us/files/03-17-04_agenda.pdf
Baltimore	NY						http://www.1010wins.com/pages/1086186.php?
Berkeley	CA	Jan-90		Prohibits polystyrene use in prepared food packaging	Mandates that at least 50% of other materials used in prepared food packaging be recyclable	Guilty of infraction according to Berkeley muncipal code; City Attorney may seek legal, injunctive, or other equitable relief as enforcement.	http://www.ci.berkeley.ca.us/bmc/berkeley_municipal_code/title_11/60/index.html
Calabasas	CA	Feb-07	Jul-07	City Facilities and sponsored events - Restaurants and Retail food vendors	The decision on polystyrene bans past Feb. 7, 2007 - similar to Santa Monica. Prohibits sale/distribution of EPS food packaging from restaurants and retail food vendors. Prohibits sale/distribution of EPS food packaging at City facilities or City events commencing July 1, 2007. Exemptions due to high cost of alternatives and contractual obligatons are allowed if approved by the City Manager.		http://www.cityofcalabasas.com/environmental/Calabasas_Ordinance_2007-233.html
California, State of	CA			styrene, take-out food packaging, polystyrene	AB904: Bans take-out food packaging; aims to be effective 2012; AB820: Bans polystyrene from State facilities including all colleges (suspended, no longer active).		http://www.cawrecycles.org/issues/current_legislation/ab820_07
Capitola	CA	Dec-06		City Facilities and sponsored events - Restaurants and Retail food vendors	Passed ordinance that requires restaurants and markets to switch to non-polystyrene alternatives, as well as required use of biodegradable or compostable plastics.	After three months of effective date first= written warning; second violation= fine not to exceed$100; third violation= fine not to exceed $200; fourth and subsequent violations = fine not to exceed $500.	http://www.ci.capitola.ca.us/capcity.nsf/index.html

Carmel-by-the-Sea	CA	Jan-89	City Facilities and sponsored events and Restaurants and Retail food vendors - *CFC process food packaging included*	Except as provided on CMC 8.68.070 and 8.68.080, no restaurant shall provide prepared food to its customers in CFC-processed food packaging or polystyrene foam food packaging, nor shall any restaurant purchase, obtain, keep, sell, distribute, provide to customers or otherwise use in its business any CFC-processed food packaging or polystyrene foam food packaging.	Guilty of an infraction as set forth in CMC Title 17. The City Attorney may seek legal, injunctive or other equitable relief to enforce this section.	http://www.codepublishing.com/dtSearch/dtisapi6.dll?cmd=getdoc&DocId=76&Index=D%3a%5cProgram%20Files%5cdtSearch%5cUserData%5cCA%5cCarmel&HitCount=20&hits=231+273+3cd+3df+3ea+4e5+501+53c+560+591+5b5+608+627+666+6d4+720+744+84e+8e4+941+&SearchForm=D%3a%5cinetpub%5cwwwroot%5cpublic%5fhtml%5cCA%5cCarmelbythesea%5cCarmel%5fform%2ehtml
Channel Islands Harbor	CA	Apr-98	Lightweight foam containers, ex. The styrofoam brand. Falls under jurisdiction of Ventura County (16).	The Ventura County Board of Supervisors on Tuesday, April 21, 2008 approved an update to the rules governing Channel Islands Harbor, including a ban on lightweight foam containers such as the Styrofoam brand.		http://www.venturacountystar.com/news/2008/apr/23/board-approves-rules-update-harbor-including-styro/
County of Orange	CA	2006/2007	County Facilities	Policy of prohibiting sale, possession, or distribution of polystyrene foam food containers at all facilities and leased/rented properties. Ordered by the County of Orange Grand Jury - 2000 First Flush		http://egov.ocgov.com/portal/site/ocgov/search?view=alphasppublished&mode=simple&s.sm.type=simpleany&s.ac.spellchecking=suggest&s.ac.lemmatization=true&s.sm.query=styrofoam
County of Sonoma	CA	Jun-89	County Facilities and sponsored events	Banned the possession, sale, or distribution of expanded polystyrene as disposable food packaging at all county-owned facilities.	Considered an infraction that is punishable by a fine not exceeding $250.	
County of Suffolk	NY	Considering	foamed polystyrene or PVC food packaging or utensils	Retail food establishments should be encouraged to recycle and reuse packaging, but will be allowed to use up preordered items because, in the absence of their ability to do so, these items would, in any event, be disposed of and ultimately placed into local landfills.		http://www.mindfully.org/Plastic/Suffolk-Co-NY-Ban.htm
County of Ventura	CA	Oct-04	County Facilities and sponsored events	Prohibits the use of EPS food service products at the County harbor, parks, govt center, and County-sponsored events by vendors, franshicsees, lessees, contractors, or other commerical food and beverage purveyors; encourages agencies to cease purchase of EPS food service products. The Ventura County Board of Supervisors on Tuesday, April 21, 2008 approved an update to the rules governing Channel Islands Harbor, including a ban on lightweight foam containers such as the Styrofoam brand.		http://www.venturacountystar.com/news/2008/apr/23/board-approves-rules-update-harbor-including-styro/
Emeryville	CA	Jan-08	City Facilities and sponsored events - Restaurants and Retail food vendors	Requirement that all takeout food packaging be compostable/recyclable	Initial written warning followed by escalating fines	http://www.ci.emeryville.ca.us/archive/City_Council/2781.pdf
Fairfax	CA	Jun-05	EPS ban	town of fairfax bans restaurants and retail food		http://www.cawrecycles.org/issues/polystyrene_ordinances_list

Freeport	ME	Jan-90		City Facilities and sponsored events - Restaurants and Retail food vendors	Prohibits the sale or use of EPS food packaging	Violations of the ordinance shall be punishable by fines not exceeding $250 for the first violation in a 1 yr period, and not exceeding $500 for the second violation and each subsequent violation in a 1 yr period.	http://www.freeportmaine.com/page.php?page_id=103&title=Ordinances%20&%20Codes
Huntington Beach	CA	Jan-05		City Facilities and sponsored events	Prohibits city from purchasing/acquiring EPS food service products in City buildings and City sponsored events; contracting parties should prevent use of EPS food service products by attendees or vendors; City's Senior Nutrition Program exempted		http://www.ci.huntington-beach.ca.us/
Laguna Beach	CA	Nov-07	Jul-08	City Facilities and sponsored events - Restaurants and Retail food vendors	Prohibit use of single-use expanded polystyrene food cointainers and kitchen ware. Preclude the use of expanded polystyrene or non-recyclable plastic at all city facilities and related uses.	Enforcement of the ordindance involves wirtten notice for the first violation, followed by administrative fines of $100, $200, and $500 for subsequent violations.	http://www.lagunabeachcity.net/
Laguna Hills	CA	Apr-08		EPS food packaging	foamed food packaging is prohibited in municipal facilities		http://www.ci.laguna-hills.ca.us/
Laguna Woods	CA	May-04		City Facilities and sponsored events	Prohibits the use of polystyrene food service products within city facilities and at city-sponsored events		http://www.lagunawoodscity.org/search.cfm?q=ordinances
Long Beach	CA	Apr-08		City Facilities and sponsored events - Restaurants and Retail food vendors	Long Beach is currently considering a foamed polystyrene takeout packaging ban		http://www.longbeach.gov/district1/agenda.asp
County of Los Angeles	CA	Considering		City Facilities and sponsored events - Restaurants and Retail food vendors	LA County is considering requiring all restaurants to use only takeout food packaging that is compatible with its recycling infrastructure.		http://lacounty.info/
Malibu	CA	Feb-05		City Facilities and sponsored events - Restaurants and Retail food vendors	Ban prohibits all restaurants, retail food vendors and non-profit food providers from serving or packaging food, met, eggs or bakery products in ps foam containers; does not apply to items packaged outside of Malibu, but sold within City boundaries	Enforcement of the ordindance involves wirtten notice for the first violation, followed by administrative fines of $100, $200, and $500 for subsequent violations.	http://www.ci.malibu.ca.us/
Millbrae	CA	Jan-08		City Facilities and sponsored events - Restaurants and Retail food vendors	Currently exploring the possibility of a ban on polystyrene at restaurants	Initial written warning followed by escalating fines for subsequent violations.	http://www.ci.millbrae.ca.us/pdf/ord-sfswo.pdf
Minneapolis	MN						http://www.time.com/time/magazine/article/0,9171,957720,00.html
Monterey County	CA	Considering		City Facilities and sponsored events - Restaurants and Retail food vendors	Monterey County is investigating banning expanded polystyrene food packaging county-wide.		http://www.co.monterey.ca.us/
Newport Beach	CA	May-07		City Facilities and sponsored events	6/10/08 - City council recommendating staff to draft ordiance. Banned polystyrene in City facilities and special events - passed June 12, 2007		http://www.city.newport-beach.ca.us/councilagendas.html

Oakland	CA	Jul-08	Jan-08	City Facilities and sponsored events - Restaurants and Retail food vendors	The ban became effective on Jan 1, 2000; requires that all takeout food packaging be compostable; conatins affordability clause.	Guilty of infraction according to Oakland muncipal code; City Attorney may seek legal, injunctive, or other equitable relief as enforcement.	http://www.oaklandgreenware.com/Page791.aspx; http://clerkwebsvr1.oaklandnet.com/attachments/14079.pdf
Pittsburg	CA	Jan-91		City Facilities and sponsored events - Restaurants and Retail food vendors	Requires 50% of a restaurant's takeout food packaging be recyclable; requirement that a percent by volume of takeout food packaging be recyclable		http://www.ci.pittsburg.ca.us/pittsburg/
Portland	OR	Jan-90		City Facilities and sponsored events - Restaurants and Retail food vendors	Prohibits restaurants and retail food vendor from serving prepared food in EPS products (both on premises and take-out); non-profits are exempt.		
Rancho Santa Margarita	CA	no current action being taken			no current action being taken		http://www.cityofrsm.org/
Richmond	CA						http://www.ci.richmond.ca.us/Search.asp?SearchString=ordinances http://www.contracostatimes.com/contracostacounty/ci_9328364
San Clemente	CA	Mar-04		City Facilities and sponsored events	Prohibits City from purchasing/acquiring EPS food service products in City buildings and City sponsored events; contracting parties should prevent use of EPS food service products by attendees or vendors.		http://san-clemente.org/sc/standard.aspx?pageid=453
San Francisco	CA	Nov-06		City Facilities and sponsored events - Restaurants and Retail food vendors	Passed a polystyrene ordinance (Food Service Reduction Act) that requires food vendors to replace polystyrene food packaging with biodegradable or compostable alternatives.		http://www.sfgov.org/
San Juan Capistrano	CA	Apr-04		City Facilities and sponsored events	Prohibits City from purchasing/acquiring EPS food service products in City buildings and City sponsored events; contracting parties should prevent use of EPS food service products by attendees or vendors; encourages all agencies to cease purchase of EPS food service products.		http://www.sanjuancapistrano.org/Search.aspx?sa.x=9&sa.y=13&sa=Search&cof=FORID%3A11&q=styrofoam&cx=011757341007860203451%3Apobreval7jm#181
Santa Barbara	CA	Considering		City Facilities and sponsored events - Restaurants and Retail food vendors	The Santa Barbara Department of Public Works is currently preparing a study to introduce an ordinance that would ban foamed polystyrene at the request of the City Council.		http://www.santabarbaraca.gov/
Santa Cruz	CA	Oct-08	Mar-08	City Facilities and sponsored events - Restaurants and Retail food vendors	Starting 3/2008, the City of Santa Cruz will prohibit food vendors from using EPS as disposable prepared food packaging; the ordinance further mandates that at least 50% of other prepared food packaging be recyclable.		http://sccounty01.co.santa-cruz.ca.us/bds/govstream/BDSvData/non_legacy/agendas/2004/20041207/PDF/033.pdf
Santa Margarita Water District	CA			EPS	Polystyrene resolution adopted		http://www.plasticdebris.org/Trash_BMPs_for_Munis.pdf

Santa Monica	CA	Nov-06	City Facilities and sponsored events - Restaurants and Retail food vendors - *bans all non-recyclable plastic*	Prohibits food providers from using polystyrene in prepared food; prohibits all City facilities, City-managed concessions, and City sponsored and permitted events from using PS food service containters; mandates that all plastics used in prepared foods be recyclable by the City of Santa Monica. http://www.smgov.net/epd/business/container_regs.htm	First violation=written warning; second violation=$100 fine; third+violation=$250 fine; fines are cumulative and each day that a violation occurs shalls constitute a separate violation.	http://santa-monica.org/cityclerk/council//agendas/2006/20061114/s2006111407-A-1.htm
St. Paul	MN	Jan-91	City Facilities and sponsored events - Restaurants and Retail food vendors	Banned food establishments from selling, conveying, or possessing food or beverages that were placed, wrapped, or packaged in packaging that is not environmentally friendly; environmentally packaging is defined as recyclable or returnable.		
Turner Valley, Calgary	Canada	Apr-08	Foam cups and plates and local shippers from using polystyrene "popcorn".	The town of Turner Valley will be the first municipality in Canada to ban polystyrene. The council unanimously agreed to ban local food establishments from using disposable foam cups and plates and local shippers from using polystyrene "popcorn" to keep their items safe in the mail. The council first wants a report within six months detailing how to implement and enforce a ban. It will then decide what steps to take.		
Ventura	CA	Oct-04	EPS food service products	Prohibits use of foamed polystyrene in county franchises.		http://www.cityofventura.net/index.asp
West Hollywood	CA	no current action being taken				http://www.weho.org/
Westchester	NY		styrofoam containers	The ban became effective as of Jan 1, 2008. The county is telling vendors at county		http://www.1010wins.com/pages/1086186.php?
						Other Sources http://www.cawrecycles.org/issues/polystyre http://www.ci.alameda.ca.us/archive/2007/a

Attachment F:

MBMC 5.80.010 Prohibition on the Use of Plastic Products by Takeout Food Vendors (1988)

Chapter 5.80

PROHIBITION ON USE OF POLYSTYRENE PLASTIC PRODUCTS BY TAKEOUT FOOD VENDORS

Sections:

5.80.010 Purpose.
5.80.020 Definitions.
5.80.030 Prohibition as to use of certain polystyrene products by takeout food vendors.
5.80.040 Penalty.

5.80.010 Purpose.

The purpose of this prohibition on the use of polystyrene plastic food packaging by takeout food vendors, unless that packaging meets certain criteria, is to protect the environment and the health of Manhattan Beach citizens.

(§ 1, Ord. 1782, eff. October 20, 1988)

5.80.020 Definitions.

As used in this chapter, unless the context otherwise clearly indicates, the words and phrases are defined as follows:

A. "Polystyrene plastic" means a thermoplastic petrochemical material utilizing a styrene monomonernd a blowing agent compound which is used for product molded, expanded or extruded expanded polystyrene plastic foam.

B. "Polystyrene food packing" means a thermoplastic petrochemical material utilizing styrene monomoner and blowing agents used for packing and containing food and drink materials, including, but not limited to, cups, bowls, plates, hinge carry-out and sandwich containers, egg car-tons, and stock food crates.

C. "Takeout food" means prepared foods or beverages requiring no further preparation to be consumed, which are normally consumed in one (1) hour of purchase, and which are purchased in order to be consumed off vendor's premises.

D. "Takeout food packaging" means all bags, sacks, wrapping, containers, bowls, plates, trays, cartons, cups, and lids on which or in which food or beverages are placed or packaged on the takeout food vendor's premises, which are not intended for reuse.

E. "Takeout food packaging" does not include forks, knives, straws, or single service condiment packages.

F. "Takeout food vendor" means any restaurant or other establishment selling food and beverages for immediate consumption located within the City of Manhattan Beach which receives more than twenty (20%) percent of its revenues from the sale of takeout food.

(§ 1, Ord. 1782, eff. October 20, 1988)

5.80.030 Prohibition as to use of certain polystyrene products by takeout food vendors.

On and after January 1, 1989, no takeout food vendor shall purchase, obtain, keep, sell, distribute, provide to customers, or otherwise keep in its business any polystyrene plastic takeout food packaging unless the packaging is made using a blowing agent compound and meets all of the following criteria:

A. The blowing agent compound will reduce the potential for ozone depletion by more than ninety-five (95%) percent compared to the ozone depletion potential of CFC-12 (dychlorodifluorothane).

B. The blowing agent compound will not contribute to the depletion of ozone in the lower atmosphere. The com-pound will be deemed to not contribute to that depletion of ozone if both the following conditions are met.
   1. The compound is not prohibited by any Federal, State or regional regulation; and
   2. The manufacture of the blowing agent compound and polystyrene plastic utilize the best available technology or best available retrofit control technology, as certified by an appropriate governmental agency which has the jurisdiction to make such determinations, to control the emissions. For the purpose of this chapter, the phrase "best available technology" shall mean the following:
      a. As to an existing facility the best avail-able retro-fit control technology as defined in Section 40406 of the Health and Safety Code; and
      b. As to a new facility or the expansion of an existing facility the best available control technology as defined in Section 40405 of the Health and Safety Code.

C. The use of the compound has been approved by the Federal Food and Drug Administration for use in food containers.

D. The use of the compound does not present any significant risk to workers or public health due to its toxicity, corrosivity, flammability or other hazardous properties.

(§ 1, Ord. 1782, eff. October 20, 1988)

5.80.040 Penalty.

In addition to any other applicable, civil or criminal penalty, any person convicted of a violation of this chapter is guilty of an infraction, which is punishable by a fine not to exceed fifty ($50.00) dollars for the first violation, one hundred ($100.00) dollars for the second violation within one year, and two hundred and fifty ($250.00) dollars for each additional violation within one year. Each incident in violation of Section 5.76.040 shall constitute a separate violation.

(§ 1, Ord. 1782, eff. October 20, 1988)

Attachment G:

Sample Ordinances Restricting the Use of Polystyrene Foam Food Containers

- City of Berkeley
- City of Calabasas
- City of Capitola
- City of Laguna Beach
- City of Malibu
- City of Oakland
- City of San Francisco
- City of Santa Monica

City of Berkeley

Chapter 11.60 POLYSTYRENE FOAM, DEGRADABLE AND RECYCLABLE FOOD PACKAGING

Section 11.60.010 Findings and purposes.

The council finds as follows:

A. Solid waste that is non-degradable or non-recyclable poses an acute problem for any environmentally and financially responsible program of solid waste management. Such waste covers the City's streets, parks, public places, and open spaces. It enters the marine and natural environment and is ingested by aquatic wildlife, frequently causing death. There is resultant damage to the ecological balance.

B. Products which are degradable or recyclable offer environmentally sound alternatives or non-degradable and non-recyclable products currently used. By decaying into their constituent substances, degradable products, compared to their non-degradable equivalents, are less of a danger to the natural environment, and less of a permanent blight on the urban landscape. Recycling of products reduces costly waste of natural resources and energy used in production of new products as well as costly disposal of waste in landfills.

C. Polystyrene foam is a petroleum processing by-product. Oil is a non-renewable resource, which can only be obtained by increasingly hazardous methods such as off-shore drilling, which poses significant dangers to the environment. Alternative products which are degradable or recyclable pose far less overall hazards than continued and expanded reliance on oil-based products.

D. Evidence indicates that all blowing agents currently used or proposed in connection with the manufacture of polystyrene foam pose dangers to the environment. Beyond the generally acknowledged dangers of Chlorofluorocarbons (CFCs) to the ozone layer, which are addressed in another City of Berkeley ordinance, other blowing agents also create dangers. For example, the blowing agent pentane creates hazardous earth-level smog and has already been restricted in some regions for air quality reasons.

E. Takeout food packaging constitutes the single greatest source of litter in Berkeley and is a significant contributor to the total amount of waste entering the City's waste stream.

F. It is in the interest of the health, safety, and welfare of all who live, work and do business in the City that the amount of litter on the public streets, parks, public places, and open spaces be reduced.

G. The City of Berkeley has the duty to responsibly dispose of its solid waste, yet existing landfill sites are rapidly approaching capacity, and additional sites are increasingly unavailable.

H. Reduction of the amount of non-degradable waste entering the waste stream and encouraging the use of recyclable containers further this goal.

I. This Chapter is consistent with the City of Berkeley's 1986 Solid Waste Management Plan, the County of Alameda Solid Waste Management Plan, and the legislative intent and findings of the State of California Solid Waste Management and Resource Recovery Act of 1972 (Government Code Section 66700 et seq.) (Ord. 5888-NS § 1, 1988)

Section 11.60.020 Definitions.

A. "Polystyrene foam" means any styrene or vinyl chloride polymer which is blown into a foam-like material.

B. "Polystyrene foam food packaging" means any food packaging which contains any polystyrene foam.

C. "Customer" means anyone purchasing food or beverages from a restaurant or retail food vendor.

D. "Person", "Anyone" means any natural person, firm, corporation, partnership, or other organization or group however organized.

E. "Supplier" means anyone selling, or otherwise supplying food packaging to a restaurant or retail food vendor.

F. "Food vendor" means any restaurant or retail food vendor.

G. "Prepared food" means foods or beverages which are prepared on the vendor's premises by cooking, chopping, slicing, mixing, freezing or squeezing, and which require no further preparation to be consumed. "Prepared food" does not include any raw uncooked meat product or fruits or vegetables which are not chopped, squeezed, or mixed.

H. "Restaurant" means any establishment located within the City of Berkeley, selling prepared food to be eaten on or about its premises by customers. Restaurant includes a sidewalk food vendor.

I. "Takeout food" means prepared foods or beverages requiring no further preparation to be consumed and which are generally purchased in order to be consumed off the retail food vendor's premises.

J. "Retail food vendor" means any store, shop, sales outlet, or other establishment, including a grocery store or a delicatessen, other than a restaurant, located within the City of Berkeley, which sells takeout food.

K. "Food packaging" means all bags, sacks, wrapping, containers, bowls, plates, trays, cartons, cups, straws and lids which are not intended for reuse, on or in which any foods or beverages are placed or packaged on a restaurant's or retail food vendor's premises.

L. "Degradable food packaging" means food packaging which substantially reduces to its constituent substances through degradation processes initiated by natural organisms whose end products are substantially, but not necessarily entirely, carbon dioxide and water; and plastic items designed to degrade when exposed to ultraviolet light. Degradable food packaging does not include cellulose-based items which have a synthetic or plastic coating comprising more than five percent of the total volume of the item.

M. "Recyclable food packaging" means any food packaging including glass, cans, cardboard, paper, mixed paper, or other items which can be recycled, salvaged, composted, processed, or marketed by any means other than landfilling or burning, whether as fuel or otherwise, so that they are returned to use by society. (Ord. 5888-NS § 2, 1988)

Section 11.60.030 Prohibited food packaging (polystyrene foam).

A. Restaurants:

1. Except as provided in Sections 11.60.070 and 11.60.080, no restaurant shall provide prepared food to its customers in any polystyrene foam food packaging, nor shall any restaurant purchase, obtain or keep any polystyrene foam food packaging for such purpose.

2. As to any food packaging obtained after the effective date of this chapter, each restaurant shall obtain from each of its suppliers a written statement signed by the supplier, or by a responsible agent of the supplier, stating that the supplier will supply no polystyrene foam food packaging to that vendor, that the supplier will note on each invoice for food packaging supplied to that vendor that the packaging covered by the invoice is not polystyrene foam and the identity of the packaging's manufacturer.

3. All contracts between a restaurant and a supplier entered into after the effective date of this chapter shall include provisions that the supplier will supply no polystyrene foam food packaging; that the supplier will state on each invoice for food packaging supplied that the packaging is not polystyrene foam and the identity of the packaging's manufacturer; and that failure to comply with such provisions shall constitute a material breach of the contract.

4. Restaurants shall retain each supplier's written statement for one year from the date of receipt of any food packaging from that supplier.

B. Retail food vendors:

1. Except as provided in Sections 11.60.070 and 11.60.080, no retail food vendor shall sell takeout food in any polystyrene foam takeout food packaging, nor shall any retail food vendor purchase, obtain or keep any polystyrene foam packaging for this purpose.

2. All retail food vendors shall segregate, in their warehouses or other storage areas, food packaging used in their takeout food operations from other food packaging. Takeout food packaging containers or boxes shall be labelled as such and shall indicate that they contain food packaging which is not polystyrene foam.

3. As to any takeout food packaging purchased after the effective date of this chapter, each retail food vendor shall comply with the requirements of Sections 11.60.030A, paragraphs 2 and 4 of this chapter.

4. All contracts for the purchase of takeout food packaging entered into after the effective date of this chapter shall comply with the provisions of Section 11.60.030A, paragraph 3. (Ord. 5888-NS § 3, 1988)

Section 11.60.040 Degradable and recyclable food packaging.

A. Restaurants:

1. At least fifty percent by volume of each restaurant's food packaging, in which prepared food is provided to customers, or which is kept, purchased, or obtained for this purpose, shall be degradable or recyclable.

2. Each restaurant shall maintain written records evidencing its compliance with this section.

B. Retail food vendors:

1. At least fifty percent by volume of each retail food vendor's packaging, in which takeout food is provided to customers, or which is kept, purchased, or obtained for this purpose, shall be degradable or recyclable.

2. Each retail food vendor shall maintain written records evidencing its compliance with this section. (Ord. 5888-NS § 4, 1988)

Section 11.60.050 Regulations applicable to all food vendors.

A. It shall be unlawful for any supplier to make any misstatement of material fact to any food vendor or to the City Manager or his or her agents regarding the degradable or recyclable

nature of, or the use or non-use of polystyrene foam in the manufacture of any food packaging supplied to any food vendor.

B. Food vendors shall state that they are in compliance with this chapter on their annual business license renewal forms. (Ord. 5888-NS § 5, 1988)

Section 11.60.060 Inspection of documents.

All statements and documents required by this chapter shall be made available for inspection by the City Manager or his or her designated representative. It shall be unlawful for anyone having custody of such documents to fail or refuse to produce such documents upon request by the City Manager or his or her designated representative. (Ord. 5888-NS § 6, 1988)

Section 11.60.070 Exemptions.

The City Manager or his or her authorized representative may exempt an item or type of food packaging from the requirements of this chapter, upon a showing that the item or type has no acceptable non-polystyrene foam equivalent and that imposing the requirements on that item or type would cause undue hardship. Said documentation shall include a list of suppliers contacted to determine if non-polystyrene foam substitutes are available. (Ord. 5888-NS § 7, 1988)

Section 11.60.080 Existing contracts exempted.

Food packaging required to be purchased under a contract entered into prior to September 22, 1987 is exempt from the provisions of this chapter. (Ord. 5888-NS § 8, 1988)

Section 11.60.090 City of Berkeley: purchases prohibited.

The City of Berkeley shall not purchase any polystyrene foam food packaging, nor shall any City-sponsored event utilize such packaging. At least fifty percent by volume of the food packaging which the City, or any City-sponsored event, utilizes shall be recyclable or degradable. (Ord. 5888-NS § 9, 1988)

Section 11.60.100 Separate food packaging waste receptacles.

Each restaurant and retail food vendor shall establish separate waste receptacles for each type of recyclable food packaging waste, generated on premises, including, but not limited to, glass, cans, cardboard, newspapers, and mixed paper. (Ord. 5888-NS § 10, 1988)

Section 11.60.110 City Manager's powers.

The City Manager is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this chapter including, but not limited to, inspecting any vendor's premises to verify compliance. (Ord. 5888-NS § 11, 1988)

Section 11.60.120 Liability and enforcement.

A. Anyone violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction as set forth in Chapter 1.20 of the Berkeley Municipal Code.

B. The City Attorney may seek legal, injunctive, or other equitable relief to enforce this chapter.

C. The remedies and penalties provided in this section are cumulative and not exclusive. (Ord. 5888-NS § 12, 1988)

Section 11.60.130 Severability.

If any part or provision of this chapter or the application thereof to any person or circumstance is held invalid, the remainder of the chapter, including the application of such part or provision to other persons or circumstances, shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this chapter are severable. (Ord. 5888-NS § 13, 1988)

Section 11.60.140 Ordinance voided by superseding laws and regulations.

The provisions of this chapter with respect to polystyrene foam, shall be void upon the enactment or adoption of any law or regulation restricting the use of plastic foams. (Ord. 5888-NS § 14, 1988)

Section 11.60.150 Effective date.

The provisions of this chapter shall become effective on January 1, 1990. (Ord. 5888-NS § 15, 1988)

ORDINANCE NO. 2007-233

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CALABASAS ADDING CHAPTER 8.18 TO THE MUNICIPAL CODE REGARDING ENVIRONMENTALLY ACCEPTABLE FOOD PACKAGING.

WHEREAS, the City of Calabasas desires to protect the natural environment, the economy, and the health of its citizens; and

WHEREAS, discarded packaging from foods, beverages and other products constitutes a significant and growing portion of Calabasas's waste stream. Regulation of such packaging, therefore, is a necessary part of any effort to encourage a recyclable waste stream and to protect the environment; and

WHEREAS, it is in the interest of the health, safety, and welfare of all who live, work and do business in the City that, to the extent feasible, the amount of litter on the public streets, parks, public places, and open spaces be reduced and that litter which does reach the natural environment be biodegradable. Existing landfill sites are rapidly approaching capacity, and additional sites are increasingly unavailable. Reduction of non-degradable wastes entering the waste stream and encouraging the use of recyclable packaging further these goals; and

WHEREAS, replacing non-biodegradable food packaging with biodegradable packaging will further protect the public health and safety of the residents, the City's natural environment, creeks and wildlife; and

WHEREAS, the minimization of non-degradable, non-returnable and non-recyclable food and beverage packaging originating at retail food establishments within the City is necessary and desirable to reduce the volume of land-filled waste; and

WHEREAS, non-biodegradable and non-recyclable materials pose a challenge to any environmentally and financially responsible solid waste management program. Discarded food packaging constitutes a significant and growing portion of the City's waste stream. Regulation of food packaging is necessary to encourage a recyclable waste stream and to reduce the disposal of solid waste and the economic and environmental costs of waste management; and

WHEREAS, biodegradable and recyclable products offer environmentally sound alternatives to products currently used. Biodegradable products decay, causing less harm to the environment and the landscape of the City than products now in use. Use and recycling of those alternative products saves the cost of disposing of waste in landfills and the energy and other resources used in production of new products; and

WHEREAS, plastic pollution has proliferated such that there are six times as many bits of plastic waste in the surface layer of the Pacific Ocean as marine life. Plastic waste originating from the United States has been found at Midway Atoll in the far reaches of the Pacific, and every cubic yard of sediment in California's coastal creeks and streams contains one-half pound of plastic waste; and

WHEREAS, bioplastics are commercially available and scientific studies show that these materials biodegrade both in compost and in the natural environment and return their base constituents to the food chain, such materials can be composted even if contaminated with food waste, and sugar cane stock (also known as bagasse) is suitable for hot foods and beverages.

NOW, THEREFORE, the City Council of the City of Calabasas does ordain as follows:

SECTION ONE: The Calabasas Municipal Code is hereby amended by adding a new Chapter 8.18 to read as set forth in the Exhibit A attached to this Ordinance.

SECTION TWO. SEVERABILITY. If any provision, section, paragraph, sentence or word of this Ordinance or of Exhibit A hereto, or the application thereof to any person or circumstance, is rendered or declared invalid by any court of competent jurisdiction, the remaining provisions, sections, paragraphs, sentences or words of this Ordinance, and their application to other persons or circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this Ordinance are severable.

SECTION THREE. EFFECTIVE DATE. This ordinance shall take effect thirty days after its passage and adoption pursuant to California Government Code section 36937.

SECTION FOUR. CERTIFICATION. The City Clerk shall certify to the passage and adoption of this Ordinance and shall cause the same to be published or posted according to law.

PASSED, APPROVED AND ADOPTED, this 21st day of February, 2007.

Dennis Washburn, Mayor

ATTEST:

Gwen Peirce, Assistant City Clerk

APPROVED AS TO FORM:

Michael G. Colantuono, City Attorney

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF CALABASAS)

I, GWEN PEIRCE, Assistant City Clerk of the City of Calabasas, California, **DO HEREBY CERTIFY** that the foregoing ordinance, being **Ordinance No. 2007-233** was duly adopted by the City Council of the City of Calabasas, at a regular meeting of the City Council held February 21, 2007, and that it was adopted by the following vote, to wit:

AYES: Mayor Washburn, Mayor pro Tem Bozajian, Councilmembers Groveman, Maurer and Wolfson.

NOES: None.

ABSTAIN: None.

ABSENT: None.

Gwen Peirce

Gwen Peirce, CMC, Assistant City Clerk
City of Calabasas, California

Exhibit A

Chapter 8.18
Food Packaging Materials

SECTION 8.18.010. PURPOSE.

The purposes of this chapter are to:

A. Decrease the use of products which do not biodegrade and cannot be recycled in order to promote public health, reduce solid waste and litter, and protect wildlife and the environment.

B. Eliminate, to the maximum extent practicable, the use of packaging at retail food establishments within the City that is non-biodegradable, non-recyclable, and which cannot be reused and thereby to protect the air, land and waters of the City and its environs.

C. Reduce litter by encouraging the use of materials that can be reused, recycled or, if littered, can biodegrade into non-harmful component materials. Many packaging materials currently in use are highly durable, buoyant, light-weight and non-biodegradable and are therefore easily windblown and become litter even when placed in trashcans. Once in the environment, plastic wastes persist and detract from the appearance of the area longer than many other types of litter and due to their essentially indefinite presence in the environment, cause continuing environmental harm as by polluting waterways and the oceans.

SECTION 8.18.020. DEFINITIONS.

As used in this chapter the following terms shall have the meanings set forth below, unless otherwise expressly stated herein or the context clearly requires otherwise:

"Biodegradable" means capable of being broken down by micro-organisms commonly found in the environment into non-harmful substances or elements within a reasonably short time after disposal.

"City Facilities" means any building, structure or vehicles owned or operated by the City of Calabasas.

"Customer" means any person obtaining food or beverages from a restaurant or retail food establishment.

"Degradable" means material which (i) substantially reduces to its constituent substances through processes initiated by natural organisms whose end products are substantially, but not necessarily entirely, carbon dioxide and water and (ii) is designed to degrade when exposed to ultraviolet light. Degradable materials do not include synthetic or plastic-coated cellulose-based items comprising more than five percent of the total volume of an item.

"Disposable Food Service Container" means disposable products used in the restaurant and food service industry to serve or transport prepared, ready-to-consume food or beverages and includes, but is not limited to, plates, cups, bowls, trays and hinged or lidded containers. "Disposable Food Service Container" excludes straws, cup lids, utensils, and packaging for Unprepared Food.

"Environmentally Acceptable Packaging" means packaging every element of which is "Returnable", "Recyclable," "Biodegradable" or "Degradable", and does not contain expanded polystyrene (EPS).

"Expanded Polystyrene (EPS)" means and includes blown polystyrene and expanded and extruded foams (sometimes incorrectly called Styrofoam®, a Dow Chemical Company trademarked form of polystyrene foam insulation) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blow molding (extruded foam polystyrene). EPS is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays and egg cartons.

"Food Provider" means any establishment which provides prepared food for public consumption on or off its premises and includes without limitation any store, shop, sales outlet, restaurant, grocery store, super market, delicatessen, caterer, catering truck or vehicle; and any organization, group or individual which regularly provides food in conjunction with services.

"Food Vendor" means any restaurant or retail food establishment.

"Nonprofit Food Provider" means an organization which provides food and which is recognized by the Internal Revenue Services as a non-profit organization.

"Packaging" means and includes all food-related wrappings, bags, boxes, coverings and containers, and shall further include cups, glasses and similar containers for drinking out of or for holding liquids, and plates and serving trays but shall specifically exclude plastic knives, forks, spoons, lids, straws and materials used to package unprepared food.

"Polystyrene" means expanded polystyrene which is a thermoplastic petrochemical material utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, form molding, and extrusion-blow molding (extruded foam polystyrene).

"Polystyrene Foam" means a thermoplastic petrochemical material utilizing a styrene monomer and processed by techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blow molding (extruded foam polystyrene).

"Prepared Food" means food or beverages, which are served, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared for consumption by a retail consumer on the premises of a retail food establishment. Prepared Food does not include raw, butchered meats, fish and/or poultry.

"Recyclable" means any material including glass, cans, cardboard, paper, mixed paper, or other items which can be recycled, salvaged, composted, processed, or marketed by any means other than land-filling or burning, whether as fuel or otherwise, so that they are returned to use by society. Recyclable materials include any plastic which can be feasibly recycled by a municipal recycling program in the State of California and presently comprise those plastics with the recycling symbols #1 through #5 including polyethylene terephthalate (PET or PETE), high density polyethylene (HDPE), low density polyethylene (LDPE), and polypropylene (PP). For purposes of this chapter, recyclable materials do not include polystyrene, polystyrene foam or expanded polystyrene (which bear recycling symbol #6).

"Recycling Program" means a process whereby used materials are separated from the solid waste stream and utilized as a raw material in the manufacture of a new product or for new economic use;

"Restaurant" means any establishment that sells "Prepared Food," including itinerant restaurants, pushcarts and vehicular food vendors.

"Retail Food Establishment" means any sales outlet, store, shop, vehicle or other place of business which sells or conveys foods or beverages to ultimate consumers, which foods or beverages are contained, wrapped, or held in or on food packaging. "Retail food establishment" shall include, but not be limited to, any place where food is prepared, mixed, cooked, baked, smoked, preserved, bottled, packaged, handled, stored, manufactured, and sold or offered for sale, including, but not limited to restaurant; drive-in; coffee shop; cafeteria; short-order cafe; delicatessen; luncheonette; grill; sandwich shop; soda fountain; bed and breakfast inn; tavern; bar; cocktail lounge; nightclub; roadside stand; take-out prepared food place; industrial feeding establishment; catering kitchen; mobile food preparation unit; commissary; grocery store; public food market; produce stand; food stand; or any other place in which food or drink is prepared for sale or for service on the premises or elsewhere; and any other establishment or operation where food is processed, prepared, served or provided to or for consumers for charge;

"Returnable" means food or beverage containers or packages, such as, but not limited to, soft drink bottles and milk containers, that are capable of being returned to the distributor such as, but not limited to, dairies and soft drink bottlers, for reuse as the same food or beverage container at least once, and for which a redemption fee is charged by the retailer.

"Supplier" means anyone selling, or otherwise supplying food packaging to, a restaurant or retail food establishment.

"Unprepared Food" means any food which is not Prepared Food.

SECTION 8.18.030. PROHIBITION

A. Commencing March 31, 2008, no person owning, operating or managing a retail food establishment or a nonprofit food provider located in the city shall do or allow another to do any of the following, except as provided in section 8.18.060:

(1) sell or convey at retail, or possess with the intent to sell or convey at retail, any food or beverage that is placed, wrapped or packaged in the city in or on packaging other than environmentally acceptable packaging; nor
(2) provide to customers, or possess with the intent to provide to customers, packaging other than environmentally acceptable packaging.

B. The presence on the premises of a retail food establishment of packaging other than environmentally acceptable packaging shall constitute a rebuttable presumption of intent to sell, convey at retail, or provide that packaging to customers.

C. Commencing July 1, 2007:

(1) Food packaging other than environmentally acceptable food packaging shall not be used by officers, agents or employees of the city at city facilities for city events or otherwise in the conduct of the city's business. The city shall not acquire environmentally unacceptable food packaging.

(2) The city shall not sponsor or co-sponsor events within the City at which food packaging other than environmentally acceptable food packaging is used or distributed by event organizers, agents of event organizers, food vendors and any other party (including a nonprofit organization) which enters into an agreement with one or more of the co-sponsors of an event to sell prepared food at the event or otherwise to provide an event-related service. The city's monetary contribution to such events shall be refunded to the city, if the city manager determines that food packaging other than environmentally acceptable food packaging was utilized.

D. Commencing July 1, 2007, all rental agreements for any city facility shall require contracting parties to prevent the use or distribution of food packaging other than environmentally acceptable food packaging in the city facility. The agreement shall provide that the contractor's security deposit will be forfeited if the city manager determines that food packaging other than environmentally acceptable food packaging was utilized in violation of the rental agreement.

SECTION 8.18.040. DEGRADABLE AND RECYCLABLE FOOD PACKAGING.

Commencing on March 31, 2007, each retail food establishment in the City shall:

A. Report on or before March 31, 2007 and the first business day of each calendar year thereafter, a written certification, signed under penalty of perjury by one authorized to bind the retail food establishment, stating that the owners and operators of the establishment are aware of the requirements of this chapter and comply with it. Such reports may be on a form provided for that purpose by the City Manager.

B. Maintain written records evidencing its compliance with this chapter.

SECTION 8.18.050. EXEMPTIONS

A. During an emergency declared by the city manager or any other public official authorized by law to do so, food establishments, franchisees, contractors and retail food establishments doing business with the city, and those using city facilities, shall be exempt from this chapter.

B. If the city manager determines that there is no commercially available environmentally acceptable food packaging that may be substituted for a particular item of non-environmentally acceptable food packaging, then the city manager may, by a written notice published or posted in the manner required by law for ordinances of the city, authorize the use of that item in the city until such time as he or she determines that an alternative has become commercially available, at which time he or she shall issue a written notice terminating the exemption, which notice shall be published or posted in the manner required by law for ordinances of the city. In determining whether alternatives to an item are commercially available, the city manager shall consider:

(1) The availability of environmentally acceptable packaging for affected products;
(2) Whether environmentally acceptable packaging alternatives are available at commercially reasonable prices;
(3) The existence of franchise or other contractual obligations which commit a retail food establishment to use corporate logo or other products which are not available as environmentally acceptable packaging.

The city manager shall annually review exemptions granted pursuant to this paragraph to determine whether current conditions continue to warrant the exemption.

C. Items required to be purchased under contract entered into prior to the adoption of this chapter are exempt from the provisions of this chapter.

D. Items packaged outside the city, whether sold at retail within the city or elsewhere, are exempt from the provisions of this ordinance.

SECTION 8.18.060. INSPECTION OF RECORDS.

All records required by this chapter shall be made available for inspection by the city manager during normal business hours. It shall be unlawful for anyone having custody of such records to fail or refuse to produce them upon request by the city manager.

SECTION 8.18.070. ENFORCEMENT

A. The city manager shall enforce this chapter. The city manager may promulgate written regulations upon notice in the manner required by law for the publication or ordinances of the city and may take any and all other actions reasonable and necessary to enforce this chapter, including, but not limited to, inspecting any retail food establishment's premises to verify compliance.

B. Any person violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction punishable pursuant to section 1.16.020(B) of this code provided, however, that any person who falsely states that he or she is in compliance with the requirements of this chapter pursuant to section 8.18.040(B) or fails to timely file the reports required by that section shall be guilty of a misdemeanor punishable pursuant to section 1.16.010 of this code.

C. Each and every sale or other transfer of food packaging other than environmentally acceptable food packaging shall constitute a separate violation of this ordinance.

D. The city attorney may seek legal, injunctive, or other equitable relief to enforce this chapter.

E. The remedies and penalties provided in this section are cumulative and not exclusive of one another.

SECTION 8.18.80. CONSTRUCTION; PREEMPTION.

This chapter and any provision thereof shall be null and void upon the adoption of any state or federal law or regulation imposing the same or essentially the same limits on the use of prohibited products as set forth in this chapter. This chapter is intended to be a proper exercise of the City's police power, to operate only upon its own officers, agents, employees and facilities and other persons acting within its boundaries, and not to regulate inter-city or interstate commerce. It shall be construed in accordance with that intent.

Capitola

Chapter 8.36 ENVIRONMENTALLY ACCEPTABLE PACKAGING MATERIALS

8.36.010 Findings and intent.

The city council finds and declares:

A. The city has a duty to protect the natural environment, the economy, and the health of its citizens.

B. Effective ways to reduce the negative environmental impacts of throw-away food service ware include reusing food service ware and using compostable and biodegradable take-out materials made from renewable resources such as paper, corn starch and sugarcane.

C. Polystyrene foam is a common environmental pollutant as well as a nonbiodegradable substance that is commonly used as food service ware by food vendors operating in the city.

D. There continues to be no meaningful recycling of polystyrene foam food service ware and biodegradable or compostable food service ware is an affordable, safe, more ecologically sound alternative.

E. Affordable biodegradable or compostable food service ware products are increasingly available for several food service applications such as cold cups, plates and hinge containers and these products are more ecologically sound than polystyrene foam materials and can be turned into a compost product.

F. New Leaf Markets, Grinds Coffee Shop, and other Capitola businesses have successfully eliminated the use of polystyrene and nonbiodegradable packaging materials in the operation of their businesses.

G. The Oakland Coliseum has successfully replaced its cups with biodegradable cornstarch cups and has shown an overall cost savings due to organics recycling.

H. Over one hundred fifty-five businesses in Oakland engage in organics recycling and it has been demonstrated that the use of biodegradable or compostable food service ware can reduce waste disposal costs when the products are taken to composting facilities as part of an organics recycling program rather than disposed in a landfill.

I. The natural compost product from these biodegradable or compostable materials is used as fertilizer for farms and gardens, thereby moving towards a healthier zero waste system.

J. Disposable food service ware constitutes a large portion of the litter in Capitola's lagoon, waterways and storm drains, and on the beaches, streets, parks and public places and the cost of managing this litter is high and rising.

K. Polystyrene foam is notorious as a pollutant that breaks down into smaller, nonbiodegradable pieces that are ingested by marine life and other wildlife thus harming or killing them.

L. Due to the physical properties of polystyrene, the EPA states "that such materials can also have serious impacts on human health, wildlife, the aquatic environment and the economy."

M. A 1986 EPA report on solid waste named the polystyrene manufacturing process as the fifth largest creator of hazardous waste in the United States.

N. In the product manufacturing process as well as the use and disposal of the products, the energy consumption, greenhouse gas effect, and total environmental effect, polystyrene's environmental impacts were second highest, behind aluminum, according to the California Integrated Waste Management Board.

O. Styrene, a component of polystyrene, is a known hazardous substance that medical evidence and the Food and Drug Administration suggests leaches from polystyrene containers into food and drink.

P. Styrene is a suspected carcinogen and neurotoxin which potentially threatens human health.

Q. Styrene has been detected in the fat tissue of every man, woman and child tested by the EPA in a 1986 study.

R. The general public is not typically warned of any potential hazard, particularly in the immigrant and non-English-speaking community.

S. Due to these concerns nearly one hundred cities have banned polystyrene foam food service ware including several California cities, and many local businesses and several national corporations have successfully replaced polystyrene foam and other nonbiodegradable food service ware with affordable, safe, biodegradable products.

T. Restricting the use of polystyrene foam food service ware products and replacing nonbiodegradable food service ware with biodegradable food service ware products in Capitola will further protect the public health and safety of the residents of Capitola, the city's natural environment, waterways and wildlife, would advance the cty's goal of developing a sustainable city, advance the city's goal of zero waste by 2020 and fulfill Article 10 of the Environmental Accords, whereby Capitola partnered with other cities across the globe in signing a commitment to eliminate or restrict the use of one chemical or environmental hazard every year. (Ord. 913 § 2 (part), 2006)

8.36.020 Definitions.

Unless otherwise expressly stated, whenever used in this chapter the following terms shall have the meanings set forth below:

A. "Affordable" means purchasable by the food vendor for same or less purchase cost than the nonbiodegradable, non-polystyrene foam alternative.

B. "ASTM Standard" means meeting the standards of the American Society for Testing and Materials (ASTM) International standards D6400 or D6868 for biodegradable and compostable plastics.

C. "Biodegradable" means the entire product or package will completely break down and return to nature, i.e., decompose into elements found in nature within a reasonably short period of time after customary disposal.

D. "Compostable" means all materials in the product or package will break down into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device. Compostable disposable food service ware includes ASTM-standard bio-plastics (plastic-like products) that are clearly labeled, preferably with a color symbol, such that any compost collector and processor can easily distinguish the ASTM standard compostable plastic from non-ASTM standard compostable plastic.

E. "City facilities" means any building, structure or vehicles owned or operated by the city, its agent, agencies, departments and franchisees.

F. "Customer" means any person obtaining prepared food from a restaurant or retail food vendor.

G. "Disposable food service ware" means all containers, bowls, plates, trays, cartons, cups, forks, spoons, knives and other items that are designed for one-time use and on, or in, which any restaurant or retail food vendor directly places or packages prepared foods or which are used to consume foods. This includes, but is not limited to, service ware for takeout foods and/or leftovers from partially consumed meals prepared at restaurants or retail food vendors.

H. "Food vendor" means any restaurant or retail food vendor located or operating within the city.

I. "Polystyrene foam" means and includes blown polystyrene and expanded and extruded foams (sometimes called Styrofoam, a Dow Chemical Co. trademarked form of polystyrene foam insulation) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but

not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blow molding (extruded foam polystyrene). Polystyrene foam is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays and egg cartons.

J. "Prepared food" means food or beverages, which are served, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared on the food vendor's premises or within the city. For the purposes of this chapter, prepared food includes raw, butchered meats, fish and/or poultry sold from a butcher case or similar retail appliance. Prepared food may be eaten either on or off the premises, also known as "takeout food."

K. "Restaurant" means any establishment located within the city that sells prepared food for consumption on, near, or off its premises by customers. Restaurant for purposes of this chapter includes itinerant restaurants, pushcarts and vehicular food vendors.

L. "Retail food vendor" means any store, shop, sales outlet, or other establishment, including a grocery store or a delicatessen, other than a restaurant, located within the city that sells prepared food. (Ord. 913 § 2 (part), 2006)

8.36.030 Prohibited food service ware.

A. Except as provided in Section 8.36.050, food vendors are prohibited from providing prepared food to customers in disposable food service ware that uses polystyrene foam.

B. All city facilities are prohibited from using polystyrene foam disposable food service ware and all city departments and agencies will not purchase or acquire polystyrene foam disposable food service ware for use at city facilities.

C. City franchises, contractors and vendors doing business with the city shall be prohibited from using polystyrene foam disposable food service ware in city facilities or on city projects within the city. (Ord. 913 § 2 (part), 2006)

8.36.040 Required biodegradable and compostable disposable food service ware.

A. All food vendors using any disposable food service ware will use biodegradable or compostable disposable food service ware unless they can show an affordable biodegradable or compostable product is not available for a specific application. Food vendors are strongly encouraged to reuse food service ware in place of using disposable food service ware. In instances that food vendors wish to use a

biodegradable or compostable disposable food service ware product that is not affordable, a food vendor may charge a "take-out fee" to customers to cover the cost difference.

B. All city facilities will use biodegradable or compostable disposable food service ware unless they can show an affordable biodegradable or compostable product is not available for a specific application.

C. City franchises, contractors and vendors doing business with the city will use biodegradable or compostable disposable food service ware unless they can show an affordable biodegradable or compostable product is not available for a specific application. (Ord. 913 § 2 (part), 2006)

8.36.050 Exemptions.

A. Prepared foods prepared or packaged outside the city are exempt from the provisions of this chapter. Purveyors of food prepared or packaged outside the city are encouraged to follow the provisions of this chapter.

B. Food vendors will be exempted from the provisions of this chapter for specific items or types of disposable food service ware if the city manager or his or her designee finds that a suitable affordable biodegradable or compostable alternative does not exist and/or that imposing the requirements of this chapter on that item or type of disposable food service ware would cause undue hardship.

C. Polystyrene foam coolers and ice chests that are intended for reuse are exempt from the provisions of this chapter.

D. Disposable food service ware composed entirely of aluminum is exempt from the provisions of this chapter.

E. Emergency Supply and Services Procurement. In a situation deemed by the city manager to be an emergency for the immediate preservation of the public peace, health or safety, city facilities, food vendors, city franchises, contractors and vendors doing business with the city shall be exempt from the provisions of this chapter. (Ord. 913 § 2 (part), 2006)

8.36.060 Liability and enforcement.

A. The city manager or his/her designee will have primary responsibility for enforcement of this chapter. The city manager or his or her designee is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this chapter, including, but not limited to, entering the premises of any food vendor to verify compliance.

B. City facilities, food vendors, retail food vendors, and restaurants will be given three months from the effective date of this ordinance to comply with the provisions herein.

C. If, after the first three months of the effective date of the ordinance codified in this chapter, the city manager or his or her designee determines that a violation of this chapter occurred, he or she will issue a written warning notice to the retail food establishment that a violation has occurred, specifying a three-month time period for the food vendor to conform to the provisions of this chapter.

D. Violation or failure to comply with any of the requirements of this chapter shall constitute an infraction pursuant to Title 4 of the Capitola Municipal Code.

E. The city attorney may seek legal, injunctive, or other equitable relief to enforce this chapter. (Ord. 913 § 2 (part), 2006)

8.36.070 Violations—Penalties.

A. If the city manager or his or her designee determines that a violation of this chapter occurred, he or she will issue a written warning notice to the food vendor that a violation has occurred, and be given three months to conform to the provisions of this chapter.

B. If the food vendor has subsequent violations of this chapter, the following penalties will apply:

1. A fine not exceeding one hundred dollars for the first violation after the warning notice is given.

2. A fine not exceeding two hundred dollars for the second violation after the warning notice is given.

3. A fine not exceeding five hundred dollars for the third and any future violations after the warning notice is given. (Ord. 913 § 2 (part), 2006)

8.36.080 Study.

One year after the effective date of this chapter, the city manager will conduct a study on the effectiveness of this chapter. (Ord. 913 § 2 (part), 2006)

Laguna Beach

ORDINANCE NO.
AN ORDINANCE OF THE CITY OF LAGUNA BEACH AMENDING MUNICIPAL CODE SECTION 7 REGARDING THE SERVICE OF POLYSTYRENE AND NON-RECYCLABLE PLASTIC SINGLE-SERVICE CONTAINERS BY TAKE-OUT FOOD SERVICES

WHEREAS, on April 23, 2007, the Environmental Committee conducted a legally noticed public hearing and, afterward reviewing and considering all documents, testimony and other evidence presented, voted to recommend that the City Council approve amendments to the Municipal Code; and

WHEREAS, on November 20, 2007, the City Council conducted a legally noticed public hearing and has reviewed and considered all documents, testimony and other evidence presented; and

WHEREAS, the City of Laguna Beach has a duty to protect the natural environment, the economy, and the health of citizens; and

WHEREAS, expanded polystyrene foam is a common environmental pollutant as well as a non-biodegradable substance that is commonly used as food service ware by food vendors operating in the City of Laguna Beach; and

WHEREAS, expanded polystyrene foam material easily breaks into smaller pieces and is so light that it floats in water and is easily carried by the wind, even when it has been disposed of properly; and

WHEREAS, marine animals and birds often confuse expanded polystyrene foam material for a source of food and the ingestion of expanded polystyrene often results in

reduced appetite and nutrient absorption and possible death by starvation of birds and marine animals; and

WHEREAS, there are several alternatives to expanded polystyrene food service containers available from existing food packaging suppliers; and,

WHEREAS, it is the City's desire to reduce the amount of beach litter and marine pollution and to protect local wildlife, both of which increase the quality of life for Laguna Beach residents and visitors,

NOW, THEREFORE THE CITY COUNCIL OF THE CITY OF LAGUNA BEACH DOES ORDAIN as follows:

SECTION 1. Chapter 7.05 is hereby added to the Laguna Beach Municipal Code as follows:

Chapter 7.05
Disposable Food Containers

Sections:

7.05.010 Definitions
7.05.020 Food Packaging Prohibitions for Disposable Food Service Ware
7.05.030 Exceptions
7.05.040 Enforcement
7.05.050 Effective Date

7.05.010 Definitions

"City Facilities" means any building, structure or vehicle owned, leased or operated by the City of Laguna Beach, its agents, agencies, departments and franchisees.

"Customer" means any person obtaining prepared food or beverages from a restaurant or retail food vendor.

"Disposable food service ware" means all single-use disposable products for serving or transporting prepared food or beverages, including without limitation takeout foods and/or leftovers from partially consumed meals prepared by a restaurant or food vendor.

Disposable food service ware includes containers, bowls, plates, trays, cartons, ice chests, lids, straws, forks, spoons, knives, and other items and utensils.

"Food vendor" means any restaurant or retail food vendor located or operating within the City of Laguna Beach.

"Non-Recyclable Plastic" refers to any plastic that cannot be feasibly recycled by a municipal recycling program in the State of California, including polystyrene and expanded polystyrene.

"Polystyrene foam" means and includes blown polystyrene and expanded and extruded forms (sometimes called Styrofoam, a Dow Chemical Co. trademarked form of polystyrene foam insulation), which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques, including without limitation fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding and extrusion-blown molding (extruded foam polystyrene). Polystyrene foam is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays, egg cartons, and ice chests.

"Prepared food" means food or beverages served, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared on the food vendor's premises or within the City of Laguna Beach. Prepared food may be eaten either on or near the premises, also known as "takeout food."

"Recyclable food packaging" means any food packaging including glass, cans, cardboard, paper, or other items which can be recycled, salvaged, composted, processed, or marketed by means other than land filling or burning, whether as fuel or otherwise so that they can be returned to use by society.

"Restaurant" means any establishment located within the City of Laguna Beach that sells prepared food for consumption on, near or off its premises by customers. Restaurants for purposes of this Chapter includes itinerant restaurants, pushcarts and vehicular food vendors as those terms are defined in Chapters 7.04.

"Retail Food Vendor" means any store, shop, sales outlet or other establishment, including a grocery store or a delicatessen, other than a restaurant, located within the City of Laguna Beach that sells prepared food.

7.05.020 Food Packaging and Sales Prohibitions for Disposable Food Service Ware

(A) Retail food vendors are prohibited from dispensing prepared food or beverages to customers in disposable food service ware made from expanded polystyrene foam or non-recyclable plastic.

(B) Retail food vendors are prohibited from retail sales of expanded polystyrene foam or non-recyclable plastic products used as disposable food service ware.

(C) All city facilities, city-managed concessions, city-sponsored events, city-permitted events and all franchisees, contractors and vendors doing business with the City are prohibited from using disposable food service ware made from expanded polystyrene or non-recyclable plastic within the City of Laguna Beach.

(D) The prohibitions set forth in this section shall not apply to containers, plates or trays for raw, butchered meats, fish and/or poultry sold from a butcher case or similar retail appliance.

7.050.030 Exceptions

(A) The City Manager or his/her designee may exempt a food vendor or retail food vendor from the requirements of this Chapter for a one-year period, upon a showing by the applicant that the conditions of this Chapter would cause undue hardship. An "undue hardship" may consist of:

(1) Situations unique to the food provider where there are no reasonable alternatives to expanded polystyrene or non-recyclable plastic food service ware and compliance with this Chapter would cause a severe economic hardship to that food provider;

(2) Situations where no reasonably feasible available alternative exists to a specific and necessary expanded polystyrene or non-recyclable plastic.

(B) A food provider granted an exemption must reapply prior to the end of the one-year exemption period and demonstrate continued undue hardship, if it wishes to have the exemption extended. Extensions may only be granted for intervals not to exceed one year.

(C) An exemption application shall include all information necessary for the making of a decision on the application, including, not limited to documentation showing the factual support for the claimed exemption. The applicant may be required to provide additional information to permit the determination of facts regarding the exemption application

(D) An exemption application may be approved in whole or in part, with or without conditions.

(E) The City Manager or his/her designee may also determine to exempt from the requirements of this Chapter the procurement of supplies or services in the event of a proclaimed emergency or when otherwise deemed necessary by the City Manager for the immediate preservation of the public health, safety or general welfare.

7.05.040 Enforcement and Notice of Violations

(A) The City Manager or his/her designee shall have primary responsibly for enforcement of this ordinance and shall have authority to issue citations for violation of this Chapter. The City Manager or his/her designee is authorized to establish regulations or administrative procedures and to take any and all actions reasonable and necessary to further the purposes of this chapter or to obtain compliance with this chapter, including, without limitation inspection of any vendor's premises to verify compliance in accordance with applicable law.

(B) Anyone violating or failing to comply with any of the requirements of this chapter or of any regulation or administrative procedure authorized by it shall be guilty of an infraction.

(C) The City Attorney may seek legal, injunctive, or any other relief to enforce this Chapter and any regulation or administrative procedure authorized hereby.

(D) The remedies and penalties provided in this Chapter are cumulative and not exclusive of one another.

(E) Administrative Remedies.

(1) For the first violation, the City Manager or his/her designee, upon determination that a violation of this chapter has occurred, shall issue a written warning notice in the form of a Courtesy Citation to the food provider that will specify the violations and the appropriate penalties in the event of future violation.

(2) A fine not exceeding one hundred dollars ($100) for the first violation following the issuance of a warning notice.

(3) A fine not exceeding two hundred dollars ($200) for the second violation following the issuance of a warning notice.

(4) A fine not exceeding $500 for the third and any subsequent violation that occurs following the issuance of a warning notice.

(5) Fines are cumulative and each day that a violation occurs shall constitute a separate violation.

7.05.050 Effective Date

This ordinance will be effective on July 1, 2008

ORDINANCE NO. 286

AN ORDINANCE OF THE CITY OF MALIBU AMENDING CHAPTER 9.24 OF THE MALIBU MUNCIPAL CODE BANNING EXPANDED POLYSTYRENE FOOD PACKAGING AND REPEALING ORDINANCE NO. 276

The City Council of the City of Malibu does ordain as follows:

Section 1. Title 9, Chapter 9.24 of the Malibu Municipal Code is hereby amended to read as follows:

"Chapter 9.24 Ban on Expanded Polystyrene Food Packaging"

Section 9.24.010 Definitions

For purposes of this chapter, the following terms shall have the following meanings:

"Customer" means any person obtaining food or beverages from a restaurant or retail food vendor.

"Expanded Polystyrene" means and includes blown polystyrene and expanded and extruded foams (sometimes incorrectly called Styrofoam®, a Dow Chemical Co. trademarked form of polystyrene foam insulation) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blow molding (extruded foam polystyrene). Expanded Polystyrene is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays and egg cartons. For the purposes of this chapter, the term "polystyrene" shall not include clear polystyrene known as "oriented polystyrene."

"Food Packager" means any person, located within the City of Malibu, who places meat, eggs, baked products, or other food in packaging materials for the purpose of retail sale of those products.

"Food Packaging" means all bags, sacks, wrapping, containers, bowls, plates, trays, cartons, cups, straws and lids which are made from Expanded Polystyrene, on or in which any foods or beverages are placed or packaged on a restaurant's or retail food vendor's premises.

"Food Vendor" means any restaurant or retail food vendor.

"Non-Profit Food Provider" means a recognized tax exempt organization which provides food as a part of its services.

"Person" means any natural person, firm, corporation, partnership, or other organization or group however organized.

"Prepared Food" means food or beverages which are served on the Food Vendor's premises and are prepared on the Food Vendor's premises or within the City of Malibu by packaging, cooking, chopping, slicing, mixing, brewing, freezing or squeezing. Prepared Food does not include any uncooked meat or eggs. Prepared Food may be eaten either on or off the premises.

"Restaurant" means any establishment located within the City of Malibu, selling Prepared Food to be eaten by customers. Restaurant includes a sidewalk food vendor.

"Retail Food Vendor", "Vendor" means any store, shop, sales outlet or other establishment, including a grocery store or a delicatessen, located within the City of Malibu, which provides Prepared Food.

9.24.020 Food Packaging Prohibitions.

A. No Restaurant, Food Packager, Retail Food Vendor, Vendor or Non-Profit Food Provider shall provide Prepared Food to its customers in any Food Packaging that utilizes Expanded Polystyrene.

B. The City of Malibu shall prohibit the use of Expanded Polystyrene Food Packaging at all City facilities. The City of Malibu shall not purchase or acquire Expanded Polystyrene Food Packaging.

C. The use or distribution of Expanded Polystyrene Food Packaging at special events sponsored or co-sponsored by the City of Malibu shall be prohibited. This prohibition shall apply to the event organizers, agents of the event organizers, event Food Vendors and any other party (including non-profit organizations) who enter into an agreement with one or more of the co-sponsors of the event to sell Prepared Food at the event or otherwise provide an event-related service.

D. All facility rental agreements for any City-owned property or facility shall include a provision requiring contracting parties to assume responsibility for preventing the utilization and/or distribution of Expanded Polystyrene Food Packaging at the associated function. The facility rental agreement shall indicate that the violating contractor's security deposit will be forfeited if the Parks and Recreation Director, or his/her designee, determines that Expanded Polystyrene Food Packaging was utilized in violation of the rental agreement.

9.24.030 Exceptions.

A. Food items packaged outside the boundaries of the City of Malibu are exempt from the provisions of this chapter.

B. The City Council, or its appointee, may exempt a Food Vendor, Food Packager or Non-Profit Food Provider from the requirements of this Code for a one year period, upon showing by the applicant that the conditions of this Code would cause undue hardship. The phrase undue hardship, shall be construed to include, but not be limited to:

1. Situations where there are no acceptable alternatives to Expanded Polystyrene Food Packaging for reasons which are unique to the Vendor, Packager or Non-Profit Provider;

2. Situations where compliance with the requirements of this Code would deprive a person of a legally protected right.

C. Coolers and ice chests made of Expanded Polystyrene are exempt from the provisions of this chapter.

D. Food Packaging required to be purchased under a contract entered into one year prior to the effective date of this chapter is exempt from the provisions of this chapter. This exemption will apply up to one year from the effective date of this chapter.

9.24.040 Enforcement and Notice of Violations.

A. The City Manager or his/her designee shall have primary responsibility for enforcement of this chapter. The City Manager or his/her designee is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this chapter, including, but not limited to, inspecting any Vendor's premises to verify compliance.

B. Anyone violating or failing to comply with any of the requirements of this chapter shall be guilty of an infraction punishable pursuant to Malibu Municipal Code Chapter 1.16.010.B.

C. The City Attorney may seek legal, injunctive, or other equitable relief to enforce this chapter.

D. The remedies and penalties provided in this section are cumulative and not exclusive of one another.

9.24.050 Severability.

If any part or provision of this Code or the application thereof to any person or circumstances is held invalid, the remainder of the Code, including the application of such part or provision to other persons or circumstances, shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this Code are severable.

Section 2. The City Council hereby repeals Ordinance No. 276.

Section 3. The City Clerk shall certify the adoption of this ordinance.

PASSED, APPROVED AND ADOPTED this 12th day of September, 2005.

ANDY STERN, Mayor

ATTEST:

LISA POPE, City Clerk

APPROVED AS TO FORM:

CHRISTI HOGIN, City Attorney

OFFICE OF THE CITY CLERK
OAKLAND

2006 JUN 26 AM 9:32

Introduced by Councilmember ___QUAN AND DE LA FUENTE___
(USE IF APPLICABLE)

Approved as to Form and Legality

James Utterback

Oakland City Attorney's Office

OAKLAND CITY COUNCIL

Ordinance No. 12747 C.M.S.

AN ORDINANCE TO PROHIBIT THE USE OF POLYSTYRENE FOAM DISPOSABLE FOOD SERVICE WARE AND REQUIRE THE USE OF BIODEGRADABLE OR COMPOSTABLE DISPOSABLE FOOD SERVICE WARE BY FOOD VENDORS AND CITY FACILITIES

This ordinance will institute two distinct practices by all food vendors and City Facilities in Oakland. The first is that the use of polystyrene foam disposable food service ware will be prohibited. The second is that all disposable food service ware will be required to be biodegradable or compostable, as long as it is affordable.

WHEREAS, the City of Oakland has a duty to protect the natural environment, the economy, and the health of its citizens; and

WHEREAS, effective ways to reduce the negative environmental impacts of throw-away food service ware include reusing food service ware and using compostable and biodegradable take-out materials made from renewable resources such as paper, corn starch and sugarcane; and

WHEREAS, polystyrene foam is a common environmental pollutant as well as a non-biodegradable substance that is commonly used as food service ware by food vendors operating in the City of Oakland; and

WHEREAS, there continues to be no meaningful recycling of polystyrene foam food service ware and biodegradable or compostable food service ware is an affordable, safe, more ecologically sound alternative; and

WHEREAS, affordable biodegradable or compostable food service ware products are increasingly available for several food service applications such as cold cups, plates and hinge containers and these products are more ecologically sound than polystyrene foam materials and can be turned into a compost product; and

WHEREAS, the Oakland Coliseum has successfully replaced its cups with biodegradable corn starch cups and has shown an overall cost savings due to organics recycling; and

WHEREAS, over 155 businesses in Oakland engage in organics recycling and it has been demonstrated that the use of biodegradable or compostable food service ware can reduce waste disposal costs when the products are taken to composting facilities as part of an organics recycling program rather than disposed in a landfill; and

WHEREAS, the natural compost product from these biodegradable or compostable materials is used as fertilizer for farms and gardens, thereby moving towards a healthier zero waste system; and

WHEREAS, disposable food service ware constitutes a large portion of the litter in Oakland's estuary, streets, parks and public places and the cost of managing this litter is high and rising; and

WHEREAS, polystyrene foam is notorious as a pollutant that breaks down into smaller, non-biodegradable pieces that are ingested by marine life and other wildlife thus harming or killing them; and

WHEREAS, due to the physical properties of polystyrene, the EPA states "that such materials can also have serious impacts on human health, wildlife, the aquatic environment and the economy." and

WHEREAS, a 1986 EPA report on solid waste named the polystyrene manufacturing process as the fifth largest creator of hazardous waste in the United States; and

WHEREAS, in the product manufacturing process as well as the use and disposal of the products, the energy consumption, greenhouse gas effect, and total environmental effect, polystyrene's environmental impacts were second highest, behind aluminum, according to the California Integrated Waste Management Board; and

WHEREAS, styrene, a component of polystyrene, is a known hazardous substance that medical evidence and the Food and Drug Administration suggests leaches from polystyrene containers into food and drink; and

WHEREAS, styrene is a suspected carcinogen and neurotoxin which potentially threatens human health; and

WHEREAS, styrene has been detected in the fat tissue of every man, woman and child tested by the EPA in a 1986 study; and

WHEREAS, the general public is not typically warned of any potential hazard, particularly in the immigrant and non-English-speaking community; and

WHEREAS, due to these concerns nearly 100 cities have banned polystyrene foam food service ware including several California cities, and many local businesses and several national corporations have successfully replaced polystyrene foam and other non-biodegradable food service ware with affordable, safe, biodegradable products; and

WHEREAS, restricting the use of polystyrene foam food service ware products and replacing non-biodegradable food service ware with biodegradable food service ware

products in Oakland will further protect the public health and safety of the residents of Oakland, the City of Oakland's natural environment, waterways and wildlife, would advance the City's goal of Developing a Sustainable City, advance the City's goal of Zero Waste by 2020 and fulfill Article 10 of the Environmental Accords, whereby Oakland partnered with other cities across the globe in signing a commitment to eliminate or restrict the use of one chemical or environmental hazard every year;

THE CITY COUNCIL OF THE CITY OF OAKLAND DOES ORDAIN CHAPTER 8.07 OF THE MUNICIPAL CODE SHALL BE:

Section 8.07.010 Definitions

"Affordable" means purchasable by the Food Vendor for same or less purchase cost than the non-Biodegradable, non-Polystyrene Foam alternative.

"ASTM Standard" means meeting the standards of the American Society for Testing and Materials (ASTM) International standards D6400 or D6868 for biodegradable and compostable plastics.

"Biodegradable" means the entire product or package will completely break down and return to nature, i.e., decompose into elements found in nature within a reasonably short period of time after customary disposal.

"Compostable" means all materials in the product or package will break down into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device. Compostable Disposable Food Service Ware includes ASTM-Standard Bio-Plastics (plastic-like products) that are clearly labeled, preferably with a color symbol, such that any compost collector and processor can easily distinguish the ASTM Standard Compostable plastic from non-ASTM Standard Compostable plastic.

"City Facilities" means any building, structure or vehicles owned or operated by the City of Oakland, its agent, agencies, departments and franchisees.

"Customer" means any person obtaining Prepared Food from a Restaurant or Retail Food Vendor.

"Disposable Food Service Ware" means all containers, bowls, plates, trays, cartons, cups, lids, straws, forks, spoons, knives and other items that are designed for one-time use and on, or in, which any Restaurant or Retail Food Vendor directly places or packages Prepared Foods or which are used to consume foods. This includes, but is not limited to, service ware for Takeout Foods and/or leftovers from partially consumed meals prepared at Restaurants or Retail Food Vendors.

"Food Vendor" means any Restaurant or Retail Food Vendor located or operating within the City of Oakland.

"Polystyrene Foam" means and includes blown polystyrene and expanded and extruded foams (sometimes called Styrofoam, a Dow Chemical Co. trademarked form of polystyrene foam insulation) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blow molding (extruded foam polystyrene). Polystyrene Foam is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays and egg cartons.

"Prepared Food" means Food or Beverages, which are served, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared on the Food Vendor's premises or within the City of Oakland. For the purposes of this ordinance, Prepared Food does not include raw, butchered meats, fish and/or poultry sold from a butcher case or similar retail appliance. Prepared Food may be eaten either on or off the premises, also known as "takeout food".

"Restaurant" means any establishment located within the City of Oakland that sells Prepared Food for consumption on, near, or off its premises by Customers. Restaurant for purposes of this Chapter includes Itinerant Restaurants, Pushcarts and Vehicular Food Vendors as those terms are defined in sections 5.49, 8.08, 8.09 of the City of Oakland Municipal Code.

"Retail Food Vendor" means any store, shop, sales outlet, or other establishment, including a grocery store or a delicatessen, other than a Restaurant, located within the City of Oakland that sells Prepared Food.

Section 8.07.040 Prohibited Food Service Ware

A. Except as provided in Section 8.07.042, Food Vendors are prohibited from providing Prepared Food to Customers in Disposable Food Service Ware that uses Polystyrene Foam.

B. All City Facilities are prohibited from using Polystyrene Foam Disposable Food Service Ware and all City Departments and Agencies will not purchase or acquire Polystyrene Foam Disposable Food Service Ware for use at City Facilities.

C. City franchises, contractors and vendors doing business with the City shall be prohibited from using Polystyrene Foam Disposable Food Service Ware in City facilities or on city projects within the City of Oakland.

Section 8.07.041 Required Biodegradable and Compostable Disposable Food Service Ware

A. All Food Vendors using any Disposable Food Service Ware will use Biodegradable or Compostable Disposable Food Service Ware unless they can show an Affordable Biodegradable or Compostable product is not available for a specific application. Food Vendors are strongly encouraged to reuse Food Service Ware in place of using Disposable Food Service Ware. In instances that Food Vendors wish to use a Biodegradable or Compostable Disposable Food Service Ware Product that is not Affordable, a Food Vendor may charge a "take out fee" to customers to cover the cost difference.

B. All City Facilities will use Biodegradable or Compostable Disposable Food Service Ware unless they can show an Affordable Biodegradable or Compostable product is not available for a specific application.

C. City franchises, contractors and vendors doing business with the City will use Biodegradable or Compostable Disposable Food Service Ware unless they can show an Affordable Biodegradable or Compostable product is not available for a specific application.

Section 8.07.042 Exemptions

A. Prepared Foods prepared or packaged outside the City of Oakland are exempt from the provisions of this Chapter. Purveyors of food prepared or packaged outside the City of Oakland are encouraged to follow the provisions of this Chapter.

B. Food Vendors will be exempted from the provisions of this Chapter for specific items or types of Disposable Food Service Ware if the City Administrator or his/her designee finds that a suitable Affordable Biodegradable or Compostable alternative does not exist and/or that imposing the requirements of this Chapter on that item or type of Disposable Food Service Ware would cause undue hardship.

C. Polystyrene Foam coolers and ice chests that are intended for reuse are exempt from the provisions of this Chapter.

D. Disposable Food Service Ware composed entirely of aluminum is exempt from the provisions of this Chapter.

E. Emergency Supply and Services Procurement: In a situation deemed by the City Administrator to be an emergency for the immediate preservation of the public peace, health or safety, City Facilities, Food Vendors, City franchises, contractors and vendors doing business with the City shall be exempt from the provisions of this Chapter.

Section 8.07.043 Liability and Enforcement

A. The City Administrator or his/her designee will have primary responsibility for enforcement of this Chapter. The City Administrator or his/her designee is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this Chapter, including, but not limited to, entering the premises of any Food Vendor to verify compliance.

B. Anyone violating or failing to comply with any of the requirements of this Chapter will be guilty of an infraction pursuant to Chapter 1.28 O.M.C.

C. The City Attorney may seek legal, injunctive, or other equitable relief to enforce this Chapter.

Section 8.07.044 Violations - Penalties

1. If the City Administrator or his/her designee determines that a violation of this Chapter occurred, he/she will issue a written warning notice to the Food Vendor that a violation has occurred.

2. If the Food Vendor has subsequent violations of this Chapter, the following penalties will apply:

   a. A fine not exceeding one hundred dollars ($100.00) for the first violation after the warning notice is given.
   b. A fine not exceeding two hundred dollars ($200.00) for the second violation after the warning notice is given.
   c. A fine not exceeding five hundred dollars ($500.00) for the third and any future violations after the warning notice is given.

3. Food Vendors may request an administrative hearing to adjudicate any penalties issued under this Chapter by filing a written request with the City Administrator, or his or her designee. The City Administrator, or his or her designee, will promulgate standards and procedures for requesting and conducting an administrative hearing under this Chapter. Any determination from the administrative hearing on penalties issued under this Chapter will be final and conclusive.

Section 8.07.045 Study

One year after the effective date of this Chapter, the City Administrator will conduct a study on the effectiveness of this Chapter.

Section 8.07.0456 Effective Date

This Chapter will become effective January 1, 2007.

IN COUNCIL, OAKLAND, CALIFORNIA, JUN 27 2006, 2006

PASSED BY THE FOLLOWING VOTE:

AYES - BRUNNER, KERNIGHAN, NADEL, QUAN, ~~BROOKS~~, REID, CHANG, AND
PRESIDENT DE LA FUENTE - 7

NOES - 1, Brooks

ABSENT - 0

ABSTENTION - 0

ATTEST:

LATONDA SIMMONS
City Clerk and Clerk of the
Council of the City of Oakland

Amendment of the Whole
November 14, 2006.

NO. 060944 ORDINANCE NO. 295-06

[Food Service Waste Reduction Ordinance.]

Ordinance amending the San Francisco Environment Code by adding Chapter 16, Sections 1601 through 1611, to: (1) prohibit the use of polystyrene foam disposable food service ware and require the use of biodegradable/compostable or recyclable disposable food service ware by restaurants, retail food vendors, City departments and the City's contractors and lessees unless there is no affordable alternative; and, (2) provide for penalties for violation; and amending the San Francisco Health Code by repealing Sections 469 through 469.10, which ban the use of food packaging and plastic food service ware made with chlorofluorocarbons.

Note: Additions are *single-underline italics Times New Roman*; deletions are ~~*strikethrough italics Times New Roman*~~. Board amendment additions are double underlined. Board amendment deletions are ~~strikethrough normal~~.

Be it ordained by the People of the City and County of San Francisco:

Section 1. **Findings.**

(a) The City and County of San Francisco has a duty to protect the natural environment, the economy, and the health of its citizens.

(b) Reusing food service ware and using compostable and biodegradable take-out materials made from renewable resources such as paper, corn starch and sugarcane are among the effective ways to reduce the negative environmental impacts of disposable food service ware.

(c) Polystyrene foam is a common environmental pollutant as well as a non-biodegradable substance that is commonly used as food service ware in the City and County of San Francisco.

Supervisors Peskin, Daly, Mirkarimi, Ammiano, McGoldrick, Sandoval, Maxwell, Dufty, Ma, Alioto-Pier
BOARD OF SUPERVISORS

(d) There continues to be no meaningful means to recycle polystyrene foam food service ware and biodegradable/ compostable or recyclable disposable food service ware is an affordable, safe, more ecologically sound alternative.

(e) Affordable biodegradable/compostable or recyclable food service ware products are increasingly available for various food service applications such as cold cups, plates and hinge containers and these products are more ecologically sound than polystyrene foam materials and can be recycled or turned into a compost product.

(f) The natural compost product from these biodegradable or compostable materials is used as fertilizer for farms and gardens, thereby moving towards a healthier zero waste system.

(g) Disposable food service ware constitutes a large portion of the litter in San Francisco's streets, parks and public places and the cost of managing this litter is high and rising.

(h) Polystyrene foam is a notorious pollutant that breaks down into smaller, non-biodegradable pieces that are ingested by marine life and other wildlife thus harming or killing them.

(i) Due to the physical properties of polystyrene foam, the United States Environmental Protection Agency (EPA) states "that such materials can also have serious impacts on human health, wildlife, the aquatic environment and the economy."

(j) In the product manufacturing process as well as the use and disposal of the products, the energy consumption, greenhouse gas effect, and total environmental effect, polystyrene foam's environmental impacts were second highest, according to the California Integrated Waste Management Board.

(k) Styrene, a component of polystyrene foam, is a known hazardous substance that medical evidence and the United States Food and Drug Administration suggest leaches from polystyrene foam containers into food and drink.

(l) Styrene is a suspected carcinogen and neurotoxin that potentially threatens human health.

(m) The general public is not typically warned of any potential hazard from styrene particularly in the immigrant and non-English-speaking community.

(n) Due to these concerns, nearly 100 cities have banned polystyrene foam food service ware including several California cities, and many local businesses and several national corporations have successfully replaced polystyrene foam and other non-biodegradable food service ware with affordable, safe, biodegradable products.

(o) The City of Berkeley banned polystyrene foam in 1990 and has reported that Berkeley restaurants have had no problem switching to paper and other alternatives.

(p) The City of Berkeley also reports positive environmental impacts from the ban, citing there is almost no styrofoam litter in Berkeley since the ban and further that their food waste stream is cleaner and more compostable.

(q) Restricting the use of polystyrene foam food service ware products and requiring them to be replaced with biodegradable or recyclable food service ware products in San Francisco will further protect the public health and safety of its residents, the City and County of San Francisco's natural environment, waterways and wildlife, would advance the City's goal of Zero Waste by 2020 and fulfill Article 10 of the Environmental Accords, whereby San Francisco partnered with other cities across the globe in signing a commitment to eliminate or restrict the use of one chemical or environmental hazard every year.

(r) In 1988, the Board of Supervisors adopted Ordinance No. 542-88 (Health Code Section 469 – 469.10) which banned the use of food packaging and plastic food service ware made with chlorofluorocarbons (CFC). The Ordinance provides that it shall be void upon the enactment or adoption of any state or federal law or regulation imposing limits on the use of CFCs in the manufacture of plastic foams. Effective 1994, the federal government banned the use of CFCs in the manufacture of foam products. 40 CFR Part 82 (58 Federal Register 4678 January 15, 1993). Accordingly, the 1988 ordinance is void by its terms.

Section 2. The San Francisco Environmental Code is hereby amended by adding Chapter 16, Sections 1601 through 1611, to read as follows:

SEC. 1601. TITLE.

This Ordinance shall be known as the Food Service Waste Reduction Ordinance.

SEC. 1602. DEFINITIONS.

(a) "Affordable" means purchasable for not more than 15 percent more than the purchase cost of the non-Biodegradable non-Compostable or non-*recyclable alternative(s).*

(b) "ASTM Standard" means meeting the standards of the American Society for Testing and Materials (ASTM) International standards D6400 or D6868 for biodegradable and compostable plastics, as those standards may be amended.

(c) "Compostable" means all the materials in the product or package will break down into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in San Francisco's composting program ~~an appropriate composting program or facility, or in a home compost pile or device~~. *Compostable Disposable Food Service Ware* ~~includes, by way of example,~~ must meet *ASTM Standards* for compostability ~~Bio-Plastics (plastic-like~~

~~products) that are~~ and any bio-plastic or plastic like product must be *clearly labeled, preferably with a color symbol,* to allow proper identification *such that* ~~any~~ San Francisco's *compost collector and processor can easily distinguish the ASTM Standard Compostable plastic from non-ASTM Standard Compostable plastic. For the purposes of this ordinance the term biodegradable shall have the same meaning as compostable. This ordinance uses the terms biodegradable and compostable interchangeably and in all cases whether the terms are used separately, in the disjunctive or in the conjunctive they shall always be interpreted and applied consistent with this definition of the term "compostable".*

(d) "City Administrator" means the City Administrator appointed under Section 3.104 of the Charter or his or her designee.

(e) "City contractors and lessees" means any person or entity that has a contract with the City for public works or improvements to be performed, for a franchise, concession or lease of property, for grant monies or goods and services or supplies to be purchased at the expense of the City and County, or to be paid out of monies deposited in the Treasury or out of trust monies under the control or collected by the City and County.

(f) "City Facility" means any building, structure or vehicle owned or operated by the City of San Francisco.

(g) "City Facility Food Provider" means an entity that provides, but does not sell, Prepared Food in City Facilities, including without limitation, San Francisco General Hospital, Laguna Honda Hospital, San Francisco County Jail and the San Bruno Jail Complex.

(h) "Disposable Food Service Ware" means all containers, bowls, plates, trays, carton, cups, lids, straws, forks, spoons, knives, napkins and other items that are designed for one-time use for Prepared Foods, including without limitation, service ware for takeout foods and/or leftovers from partially consumed meals prepared by Food Vendors. The term "Disposable Food Service Ware" does

not include items composed entirely of aluminum or polystyrene foam coolers and ice chests that are intended for reuse. ~~nor does this term include recyclable food service ware.~~

(i) "Food Vendor" means any Restaurant or Retail Food Vendor located or operating within the City and County of San Francisco.

(j) "Person" means an individual, trust, firm, joint stock company, corporation including a government corporation, partnership, or association.

(k) "Polystyrene Foam" means blown polystyrene and expanded and extruded foams (sometimes called Styrofoam™) which are thermoplastic petrochemical materials utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, foam molding, and extrusion-blown molding (extruded foam polystyrene). Polystyrene foam is generally used to make cups, bowls, plates, trays, clamshell containers, meat trays and egg cartons.

(l) "Prepared Food" means food or beverages, which are serviced, packaged, cooked, chopped, sliced, mixed, brewed, frozen, squeezed or otherwise prepared (collectively "prepared") within the City and County of San Francisco for individual customers or consumers. For the purpose of this Chapter, Prepared Food includes take-out food, but does not include raw, butchered meats, fish and/or poultry sold from a butcher case or similar retail appliance.

(m) "Recyclable" means material that can be sorted, cleansed, and reconstituted using San Francisco's available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.

(n) "Restaurant" means any establishment located within the City and County of San Francisco that sells Prepared Food for consumption on, near, or off its premises. For purposes of this Chapter, the term includes a Restaurant operating from a temporary facility, cart, vehicle or mobile unit.

(o) "Retail Food Vendor" means any store, shop, sales outlet, or other establishment, including a grocery store or a delicatessen, other than a Restaurant, located within the City and County of San Francisco that sells Prepared Food.

SEC. 1603. PROHIBITED DISPOSABLE FOOD SERVICE WARE.

(a) Food Vendors may not sell Prepared Food in Disposable Food Service Ware that contains Polystyrene Foam.

(b) City Facility Food Providers may not provide Prepared Food in Disposable Food Service Ware that contains Polystyrene Foam.

(c) City Departments may not purchase, acquire or use Disposable Food Service Ware that contains Polystyrene Foam.

(d) City contractors and lessees may not use Disposable Food Service Ware that contains Polystyrene Foam in City Facilities and while performing under a City contract or lease.

SEC. 1604. REQUIRED BIODEGRADABLE/ COMPOSTABLE OR RECYCLABLE DISPOSABLE FOOD SERVICE WARE.

(a) All Food Vendors using any Disposable Food Service Ware shall use a suitable Affordable alternative Biodegradable/Compostable or Recyclable product, unless there is no suitable Affordable Biodegradable/Compostable or Recyclable product available as determined by the City Administrator in accordance with this subsection. Not later than 30 days before the operative date of this Chapter, and after a public hearing, the City Administrator shall adopt a list of available suitable Affordable Biodegradable/ Compostable or Recyclable alternatives for each product type. The City Administrator shall regularly update the list.

(b) All City Facility Food Providers and City departments using any Disposable Food Service Ware shall use Biodegradable/Compostable or Recyclable Disposable Food Service Ware unless there is no Affordable Biodegradable or Compostable product available as determined by the City Administrator in accordance with subsection ~~1603(a)~~ 1604(a).

(c) City contractors and lessees using any Disposable Food Service Ware shall use suitable *Biodegradable/Compostable or Recyclable Disposable Food Service Ware in City Facilities and while performing under a City contract or lease unless there is no* suitable *Affordable Biodegradable/Compostable or recyclable product available as determined by the City Administrator in accordance with subsection ~~1603(a)~~* 1604(a).

SEC. 1605. IMPLEMENTATION; CITY CONTRACTS AND LEASES.

(a) The City Administrator is authorized to promulgate regulations, guidelines and forms and to take any and all other actions reasonable and necessary to implement and enforce this Chapter.

(b) Any person may seek a waiver from the requirements of Section 1604 of this Chapter by filing a request on a form specified by the City Administrator. The City Administrator, consistent with this Chapter, may waive any specific requirement of this Chapter for a period of up to one year if the person seeking the waiver has demonstrated that strict application of the specific requirement would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The City Administrator's decision to grant or deny a waiver shall be in writing and shall be final.

(c) All City contracts and leases, including without limitation, contracts with City Facility Food Providers, shall contain the following minimum language: "Contractor agrees to comply fully with and be bound by all of the provisions of the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including the remedies provided, and implementing

guidelines and rules. The provisions of Chapter 16 are incorporated herein by reference and made a part of this agreement as though fully set forth. This provision is a material term of this agreement. By entering into this agreement, contractor agrees that if it breaches this provision, City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of one hundred dollars ($100.00) liquidated damages for the first breach, two hundred dollars ($200.00) liquidated damages for the second breach in the same year, and five hundred dollars ($500.00) liquidated damages for subsequent breaches in the same year is a reasonable estimate of the damage that City will incur based on the violation, established in light of the circumstances existing at the time this agreement was made. Such amounts shall not be considered a penalty, but rather agreed monetary damages sustained by City because of contractor's failure to comply with this provision."

SEC. 1606. ENFORCEMENT AND PENALTIES.

(a) The City Administrator shall issue a written warning to any person he or she determines is violating Sections 1603(a) or 1604(a) of this Chapter. If after issuing a written warning of violation from the City Administrator, the City Administrator finds that person continues to violate the provisions of Sections 1603(a) or 1604(a), the City Administrator may apply for or impose the various sanctions provided in this Section.

(b) Any person who violates the provisions of Sections 1603(a) or 1604(a) of this Chapter shall be guilty of an infraction. If charged as an infraction, upon conviction thereof, said person shall be punished for the first offense by a fine of not more than $100.00 for a first violation; not more than $200.00 for a second violation in the same year and not more than $250.00 for each subsequent violation in the same year.

(c) The City Administrator may issue an administrative civil liability citation to such person in an amount not exceeding $100.00 for the first violation, an amount not exceeding $200.00 for the

second violation in the same year, and an amount not exceeding $500.00 for each subsequent violation in the same year.

In determining administrative civil penalties, the City Administrator shall consider the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, the frequency of past violations, any action taken to mitigate the violation, and the financial burden to the violator.

Any person to whom the City Administrator issues a written warning of violation or an administrative civil liability citation may request an administrative hearing to appeal such warning or determination of liability. Not later than 30 days before the operative date of this Chapter, and after a public hearing, the City Administrator shall promulgate rules and procedures for requesting and conducting an administrative hearing under this Chapter. In any administrative hearing under this Article, all parties involved shall have the right to offer testimonial, documentary, and tangible evidence bearing on the issues, to see and copy all documents and other information the City relies on in the proceeding, and to confront and cross-examine any witnesses against them. A decision by the hearing officer shall be final. Any person assessed a penalty under this subsection may contest such decision to the Superior Court within 20 days after service of the City's decision.

(d) The City Attorney may seek legal, injunctive, or other equitable relief to enforce this Chapter, including without limitation, civil penalties in an amount not exceeding $100.00 for the first violation, $200.00 for the second violation, and $250.00 for each subsequent violation in any given year.

(e) The City may not recover both administrative and civil penalties pursuant to subsections (c) and (d) of this Section for the same violation. Penalties collected under subsections (c) and (d) of this Section, which may include recovery of enforcement costs, shall be used to fund implementation and enforcement of this Chapter.

SEC. 1607. REPORT TO THE BOARD OF SUPERVISORS.

No later than June 1 ~~February~~ *1, 2008, the Director of the Department of the Environment, in consultation with the City Administrator and with input from members of the public, shall submit to the Board of Supervisors a report recommending changes, if any, to this Chapter, including whether the ban imposed by this Chapter should be extended to other products, as supported by the report. If the Director recommends banning additional products, the report must include an estimate of the costs and benefits of compliance with a ban on additional products, including the increased costs to the City as well as to the City's food service industry.*

SEC. 1608. OPERATIVE DATE.

This ordinance shall become operative on June 1, 2007.

SEC. 1609. SEVERABILITY.

If any section, subsection, sentence, clause, or phrase of this Chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Chapter. The Board of Supervisors hereby declares that it would have passed this Chapter and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of this Chapter would be subsequently declared invalid or unconstitutional.

SEC. 1610. NO CONFLICT WITH FEDERAL OR STATE LAW.

Nothing in this Ordinance shall be interpreted or applied so as to create any requirement, power or duty in conflict with any federal or state law.

SEC. 1611. UNDERTAKING FOR THE GENERAL WELFARE.

In undertaking the implementation of this Chapter, the City is assuming an undertaking only to promote the general welfare. It is not assuming, nor is it imposing on its officer and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

Section 3. The San Francisco Health Code is hereby amended by repealing Sections 469 through 469.10 in their entirety.

~~***SEC. 469. CHLOROFLUOROCARBON PROCESSED FOOD PACKAGING - FINDINGS.***~~

~~*The Board of Supervisors finds that the release of chlorofluorocarbons (CFC) into the environment may endanger public health and welfare by causing or contributing to significant depletion of the stratospheric ozone layer.*~~

~~*CFCs are manufactured chemicals that remain in the atmosphere for decades slowly migrating upwards without reacting with any other chemicals.*~~

~~*Stratospheric ozone shields the earth's surface from dangerous ultraviolet (UV-B) radiation. When CFC molecules react with UV light in the stratosphere they break down, freeing chlorine atoms which catalyze the destruction of ozone. One chlorine atom can destroy as many as 100,000 ozone molecules before it is rendered inactive or removed from the atmosphere.*~~

~~*A national and international consensus has developed that unabated use of CFCs is resulting in depletion of stratospheric ozone. The Environmental Protection Agency has determined that as stratospheric ozone levels drop, penetration of UV-B radiation will increase resulting in potential health and environmental harm. Direct effects are likely to include increased incidence of skin cancer*~~

~~*and cataracts, suppression of the immune response system and damage to crops and aquatic organisms. (Federal Register, August 12, 1988, p. 30566.)*~~

~~*In the troposphere, the lower atmosphere, CFCs along with other chemicals absorb infrared radiation, warming the earth. Scientists predict that global warming may melt polar ice, raise sea levels and flood low-lying coasts. It may also disrupt agriculture due to shifts in global temperature and rainfall patterns.*~~

~~*CFCs are widely used as blowing agents in the manufacture of plastic food packaging. Moreover, while other foam products store or bank much of the CFCs within them, food service products emit most of the CFC used in their manufacture during the manufacture, use and disposal of the products.*~~

~~*The Board of Supervisors finds, therefore, that the widespread use of CFC processed food packaging poses a threat by the introduction of toxic byproducts into the atmosphere and general environment of the City and County of San Francisco.*~~

~~*The Board of Supervisors further finds that restricting the sale of CFC processed food packaging and the use of CFC processed food packaging in retail food establishments in San Francisco would be a step toward slowing ozone loss and greenhouse gas buildup, thereby protecting the public health.*~~

~~*In addition to emitting CFC's, plastic food service items take hundreds of years to decompose and cannot be recycled. However, these food packaging items can be made from other materials, such as recycled or virgin paper, and other biodegradable products which are not made with CFCs. By this legislation, the Board of Supervisors intends to encourage restaurant and food retailers and wholesalers in San Francisco to use biodegradable packaging in place of those made with CFCs.*~~

~~***SEC. 469.1. DEFINITIONS.***~~

~~*As used in Sections 469 through 469.9 inclusive, the following words and terms shall have the following meanings:*~~

~~*(a) "Chlorofluorocarbons," ("CFCs") means the family of substances containing carbon, fluorine and chlorine and having no hydrogen atoms and no double bonds.*~~

~~*(b) "CFC processed food packaging" means food packaging which uses chlorofluorocarbons as blowing agents in its manufacture.*~~

~~*(c) "Director" means the Director of Health of San Francisco's Department of Public Health, or designee.*~~

~~*(d) "Food" means any article intended for use for food, drink, confection, or condiment, or any article which is used or integrated for use as a component of the food or otherwise affecting the component of the food.*~~

~~*(e) "Food packaging" means all food related wrappings, boxes, containers, bowls, plates, trays, cartons, cups, lids or drinking utensils, on which or in which food is placed or packaged on the retail food establishment's premises, and which are not intended for reuse. Food packaging does not include forks, knives, straws or single service condiment packages.*~~

~~*(f) "Retail food establishment" means any food product and marketing establishment as defined in Section 440 of this Code and any food preparation and service establishment as defined in Section 451 of this Code.*~~

~~*(g) "Supplier" means anyone selling, or otherwise supplying packaging to a retail food establishment.*~~

~~*(h) "Wholesaler" means anyone who acts as a wholesale merchant, broker, jobber or agent, who sells for resale.*~~

~~***SEC. 469.2. PROHIBITION ON USE OF CHLOROFLUOROCARBON PROCESSED FOOD PACKAGING.***~~

~~*(a) No retail food establishment located and doing business within the City and County of San Francisco shall purchase, obtain, keep, sell, distribute, provide to customers or otherwise use in its business, any CFC processed food packaging, except as provided in Sections 469.4 and 469.5.*~~

~~*(b) No wholesaler located and doing business within the City and County of San Francisco shall sell, distribute or provide to customers, or keep within the City and County of San Francisco, any CFC processed food packaging, except as provided in Sections 469.4 and 469.5.*~~

~~***SEC. 469.3. FOOD PACKAGING - PROOF OF COMPLIANCE.***~~

~~*(a) Every retail food establishment shall show proof of compliance with Section 469.2 of this Code by (1) either entering into a contract with its suppliers, or obtaining a written statement from its suppliers, which provides that the supplier will supply only food packaging not manufactured with CFCs and (2) obtaining a written statement from the supplier on each invoice for food packaging that the food packaging invoiced was not CFC processed.*~~

~~*(b) Every wholesaler shall show proof of compliance with Section 469.2 of this Code by obtaining a written statement from the supplier on each invoice for food packaging that is sold, distributed or provided to customers in the City and County of San Francisco that the food packaging invoiced was not CFC processed, and acknowledging that the supplier is aware of the provisions of this ordinance making illegal the providing of false information on the invoice.*~~

~~*(c) It shall be unlawful for any supplier to make any false statement regarding the use or non-use of CFCs in the manufacture of food packaging supplied to any wholesaler or retail food establishment.*~~

~~*(d) Retail food establishments shall retain copies of each contract or written statement required by this Section, and wholesalers shall retain copies of invoices required by this Section, and they shall make them available for inspection upon request. Invoices and contracts required by this Section shall be retained for a period of one year.*~~

~~***SEC. 469.4. EXCEPTIONS.***~~

~~*The Director may exempt an item or type of food packaging from the requirements of Sections 469.2 and 469.3 upon application by the retail food establishment demonstrating to the satisfaction of the Director that the item or type of packaging has no acceptable non-CFC processed equivalent.*~~

~~***SEC. 469.5. FOOD PACKAGING – EXISTING CONTRACTS.***~~

~~*Food packaging required to be purchased under a contract entered into prior to or within six months of the effective date of this ordinance is exempt from the provisions of this ordinance.*~~

~~***SEC. 469.6. PENALTIES AND ENFORCEMENT.***~~

~~*(a) The Director may enforce the provisions of Sections 469.2 and 469.3 against violations by either of the following actions:*~~

~~*(1) Serving notice requiring the correction of any violation.*~~

~~*(2) Calling upon the City Attorney to maintain an action for injunction to enforce the provisions of Sections 469.2 and 469.3, to cause the correction of any such violation, and for the assessment and recovery of a civil penalty for such violation.*~~

~~*(b) Any individual, firm, partnership, corporation, company, association, society, group, or other person or legal entity that violates any provision of Sections 469.2 and 469.3 shall be liable for a civil penalty, not to exceed $500 for each day such violation is committed or permitted to continue. Any*~~

~~*penalty shall be assessed and recovered in a civil action brought in the name of the people of the City and County of San Francisco by the City Attorney in any court of competent jurisdiction. Any penalty assessed and recovered in an action brought pursuant to this Section shall be paid to the Treasurer of the City and County of San Francisco.*~~

~~*(c) Failure to comply with the provisions of Sections 469.2 and 469.3 shall be grounds for suspension or revocation of a permit issued pursuant to Sections 440 and 452, after a hearing by the Department of Public Health.*~~

~~***SEC. 469.7. CITY AND COUNTY PURCHASES PROHIBITED.***~~

~~*The City and County shall purchase no CFC processed food packaging, except packaging required to be purchased under a contract entered into prior to or within six months of the effective date of this ordinance unless the department purchasing the item or type of packaging makes a showing to the Director that the item or type of packaging has no acceptable non-CFC processed equivalent.*~~

~~***SEC. 469.8. CONFLICT WITH OTHER LAWS.***~~

~~*(a) By adopting this ordinance, the City and County of San Francisco does not intend to authorize any activity that federal or state law or regulation prohibits, to prohibit any activity that federal or state law or regulation authorizes, or to duplicate any federal or state law or regulation except to the extent allowed by law.*~~

~~*(b) This ordinance shall be void upon the enactment or adoption of any state or federal law or regulation imposing limits on the use of CFCs in the manufacture of plastic foams.*~~

~~***SEC. 469.9. PROMOTING PURPOSES OF LEGISLATION.***~~

~~*The Board of Supervisors will promote the lobbying of the State Legislature and United States Congress to stop the use of chlorofluorocarbons in the United States. The Board will promote consultations with San Francisco sister cities pursuing an end to chlorofluorocarbon use internationally.*~~

~~***SEC. 469.10. SEVERABILITY.***~~

~~*If any Section, Subsection, Subdivision, Paragraph, sentence, clause or phrase of this Article 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 Article or any part thereof. The Board of Supervisors hereby declares that it would have passed each Section, Subsection, Subdivision, Paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more Sections, Subsections, Subdivisions, Paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or ineffective.*~~

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: _____
BURK E. DELVENTHAL
Deputy City Attorney

f:\atty\muni\laws\jl\plasticsord2d
City Council Meeting 1-9-07

Santa Monica, California

ORDINANCE NUMBER 2216 (CCS)

(City Council Series)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA BANNING NON-RECYCLABLE PLASTIC DISPOSABLE FOOD SERVICE CONTAINERS

WHEREAS, there are currently approximately 300 individual restaurants and food service businesses in Santa Monica; and

WHEREAS, many of these businesses use disposable food containers made from expanded polystyrene (EPS) and other non-recyclable plastics; and

WHEREAS, EPS is not biodegradable and as a result persists in the environment for hundreds and possibly thousands of years; and

WHEREAS, EPS material easily breaks down into smaller pieces and is so light that it floats in water and is easily carried by the wind, even when it has been disposed of properly; and

WHEREAS, numerous studies have documented the prevalence of EPS debris in the environment, including in storm drains and on beaches, causing Santa Monica's residents to pay thousands of dollars in clean-up costs; and

WHEREAS, marine animals and birds often confuse EPS for a source of food and the ingestion of EPS often results in reduced appetite and nutrient absorption and possible death by starvation of birds and marine animals; and

WHEREAS, recycling of EPS products is not currently economically viable; and

WHEREAS, there are several alternatives to EPS disposable food service containers available in Santa Monica from existing food packaging suppliers; and

WHEREAS, an important goal of the City's Sustainable City Plan is to procure and use sustainable products and services; and

WHEREAS, it is the City's desire to reduce the amount of beach litter and marine pollution and to protect local wildlife, both of which increase the quality of life for Santa Monica's residents and visitors,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA MONICA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Chapter 5.44 is hereby added to the Santa Monica Municipal Code as follows:

5.44.010 Definitions

(a) "Biodegradable" refers to the ability of a material to decompose into elements normally found in nature within a reasonably short period of time after disposal.

(b) "City Facilities" refers to buildings and structures owned or leased by the City of Santa Monica.

(c) "Disposable Food Service Container" means single-use disposable products used in the restaurant and food service industry for serving or transporting prepared, ready-to-consume food or beverages. This includes but is not limited to plates, cups, bowls, trays and hinged or lidded containers. This does not include single-use disposable items such as straws, cup lids, or utensils, nor does it include single-use disposable packaging for unprepared foods.

(d) "Expanded Polystyrene" (EPS) means polystyrene that has been expanded or "blown" using a gaseous blowing agent into a solid foam.

(e) "Food Provider" means any establishment, located or providing food within the City of Santa Monica, which provides prepared food for public consumption on or off its premises and includes without limitation any store,

shop, sales outlet, restaurant, grocery store, super market, delicatessen, catering truck or vehicle, or any other person who provides prepared food; and any organization, group or individual which regularly provides food as a part of its services.

(f) "Non-Recyclable Plastic" refers to any plastic which cannot be feasibly recycled by a municipal recycling program in the State of California, including polystyrene and expanded polystyrene.

(g) "Polystyrene" means and includes expanded polystyrene which is a thermoplastic petrochemical material utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, form molding, and extrusion-blow molding (extruded foam polystyrene). The term "polystyrene" also includes clear or solid polystyrene which is known as "oriented polystyrene".

(h) "Prepared Food" means any food or beverage prepared for consumption on the food provider's premises, using any cooking or food preparation technique. This does not include any raw uncooked meat, fish or eggs unless provided for consumption without further food preparation.

(i) "Recyclable Plastic" means any plastic which can be feasibly recycled by a municipal recycling program in the State of California. Recyclable plastics comprise those plastics with the recycling symbols #1 through #5 including polyethylene terephthalate (PET or PETE), high density polyethylene (HDPE), low density polyethylene (LDPE), and polypropylene (PP).

5.44.020 Prohibition on the Use of Non-Recyclable Plastic Disposable Food Service Containers

A. Except as provided in Section 5.44.030, food providers are prohibited from dispensing prepared food to customers in disposable food service containers made from expanded polystyrene.

B. Except as provided in Section 5.44.030, food providers are prohibited from dispensing prepared food to customers in disposable food service containers made from non-recyclable plastic.

C. All City Facilities, City-managed concessions, City sponsored events, and City permitted events are prohibited from using disposable food service containers made from expanded polystyrene or non-recyclable plastic.

5.44.030 Exemptions

(a) The Director of the Environmental and Public Works Management Department (EPWM), or his/her designee, may exempt a food provider from the requirements of this ordinance for a one year period, upon showing by the food provider that the conditions of this ordinance would cause undue hardship. An "undue hardship" shall be found in:

1. Situations unique to the food provider where there are no reasonable alternatives to expanded polystyrene or non-recyclable plastic disposable food service containers and compliance with this Chapter would cause significant economic hardship to that food provider;

2. Situations where no reasonably feasible available alternatives exist to a specific and necessary expanded polystyrene or non-recyclable plastic food container.

A food provider granted an exemption by the City must re-apply prior to the end of the one year exemption period and demonstrate continued undue hardship, if it wishes to have the exemption extended. Extensions may only be granted for intervals not to exceed one year.

(b) An exemption application shall include all information necessary for the City to make its decision, including but not limited to documentation showing the factual support for the claimed exemption. The Director may require the applicant to provide additional information to permit the Director to determine facts regarding the exemption application.

(c) The Director may approve the exemption application, in whole or in part, with or without conditions.

(d) Exemption decisions are effective immediately and final and are not appealable.

5.44.040 Enforcement and Notice of Violations

A. The Director of EPWM or his/her designee shall have primary responsibility for enforcement of this ordinance and the Director of EPWM or his/her designee shall have authority to issue citations for violation of this Chapter. The Director of EPWM or his/her designee is authorized to establish regulations or administrative procedures and to take any and all actions reasonable and necessary to further the purposes of this chapter or to obtain compliance with this chapter, including, but not limited to,

inspecting any vendor's premises to verify compliance in accordance with applicable law.

B. Anyone violating or failing to comply with any of the requirements of this chapter or of any regulation or administrative procedure authorized by it shall be guilty of an infraction.

C. The City Attorney may seek legal, injunctive, or any other relief to enforce this chapter and any regulation or administrative procedure authorized by it.

D. The remedies and penalties provided in this chapter are cumulative and not exclusive of one another.

5.44.050 Penalties and Fines for Violations

Violations of this ordinance shall be enforced as follows:

A. For the first violation, the Director of EPWM or his/her designee, upon determination that a violation of this chapter has occurred, shall issue a written warning notice to the food provider which will specify the violation and the appropriate penalties in the event of future violations.

B. Thereafter, the following penalties shall apply:

1. A fine not exceeding one hundred dollars ($100.00) for the first violation following the issuance of a warning notice.

2. A fine not exceeding two hundred and fifty dollars ($250.00) for the second and any other violation that occurs following the issuance of a warning notice.

C. Fines are cumulative and each day that a violation occurs shall constitute a separate violation.

5.44.60 Effective Dates

A. No food provider shall distribute or utilize disposable food service containers containing expanded polystyrene or non-recyclable plastic on or after one year following the adoption of this ordinance by the City Council.

B. No City facilities, City managed concessions, City sponsored events or City permitted events shall distribute or utilize disposable food service containers containing expanded polystyrene or non-recyclable plastic on or after the effective date of this ordinance

SECTION 2. Any provision of the Santa Monica Municipal Code or appendices thereto inconsistent with the provisions of this Ordinance, to the extent of such

inconsistencies and no further, is hereby repealed or modified to that extent necessary to effect the provisions of this Ordinance.

SECTION 3. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

SECTION 4. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within 15 days after its adoption. This Ordinance shall become effective 30 days from its adoption.

APPROVED AS TO FORM:

MARSHA JONES MOUTRIE
City Attorney

Approved and adopted this 9th day of January, 2007.

Richard Bloom, Mayor

State of California)
County of Los Angeles) ss.
City of Santa Monica)

I, Maria M. Stewart, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Ordinance No. 2216 (CCS) had its introduction on December 5, 2006, and was adopted at the Santa Monica City Council meeting held on January 9, 2007, by the following vote:

Ayes:	Council members:	Genser, Holbrook, McKeown, O'Connor, Shriver Mayor Bloom, Mayor Pro Tem Katz
Noes:	Council members:	None
Abstain:	Council members:	None
Absent:	Council members:	None

ATTEST:

Maria M. Stewart, City Clerk

Attachment H:

Alternative Food Container Cost Comparisons

- City of Long Beach Environmental Committee
- Earth Resources Foundation

City of Long Beach
April 22, 2008 Report from the Environmental Committee

Attachment B

Food Service Products Cost Comparison

Please Note: This data is for informational purposes only. Actual item price may vary by vendor.

	Material	Size	Quantity	Price	Price per Unit
cups	EPS* (hot/cold)	12 oz	1000	$22.21	$0.02
	EPS (hot/cold)	12 0z	100	$10.99	$0.11
	EPS (hot/cold)	10 oz	1000	$39.99	$0.04
	EPS (hot/cold)	12 oz	1000	$38.99	$0.04
	AVERAGE PER UNIT COST FOR EPS CUP				**$0.05**
	paper (cold)	12 oz	300	$10.28	$0.03
	paper (hot)	12 0z	160	$12.24	$0.08
	paper(hot/cold)	12 oz	1000	$99.99	$0.10
	paper (with PLA** lining) (hot)	12 oz	1000	$72.50	$0.07
	AVERAGE PER UNIT COST FOR PAPER CUP				**$0.06**
	plastic (cold)	10 oz	300	$7.77	$0.03
	plastic (cold)	16 oz	50	$3.99	$0.08
	plastic (cold)	12 oz	50	$3.49	$0.07
	AVERAGE PER UNIT COST FOR PLASTIC CUP				**$0.06**
	corn (cold)	12 oz	50	$6.49	$0.13
	corn (cold)	12 oz	1000	$87.75	$0.09
	PLA (cold)	12 oz	1000	$89.00	$0.09
	PLA-coated paper (hot)	12 oz	1000	$95.35	$0.10
	bagasse*** (hot)	12 oz	1000	$81.50	$0.08
	AVERAGE PER UNIT COST FOR PLA/BIOPLASTIC CUP				**$0.10**
Plates	EPS	9"	125	$5.99	$0.05
	EPS	9"	125	$6.99	$0.06
	EPS	9"	200	$9.21	$0.05
	AVERAGE PER UNIT COST FOR EPS PLATE				**$0.05**
	paper	9"	1200	$16.79	$0.01
	paper	9"	1000	$29.99	$0.03
	paper	9"	120	$3.48	$0.03
	AVERAGE PER UNIT COST FOR PAPER PLATE				**$0.03**
	plastic	9"	50	$10.99	$0.22
	plastic	9"	500	$24.99	$0.05
	plastic	9"	125	$23.78	$0.19
	AVERAGE PER UNIT COST FOR PLASTIC PLATE				**$0.15**
	biodegradable	10"	125	$15.99	$0.13
	biodegradable paper	9 3/8"	125	$19.75	$0.16
	biodegradable recycled paper	9"	40	$5.00	$0.13
	bagasse	8 3/4"	50	$6.00	$0.12
	compostable/recyclable paper	9"	125	$19.99	$0.16
	bagasse	9"	1000	$87.00	$0.09
	AVERAGE PER UNIT COST FOR PLA PLATE				**$0.13**

Bowls	EPS	12 oz	125	$5.99	$0.05
	EPS	12 oz	125	$3.79	$0.03
	EPS	12 oz	300	$8.88	$0.03
	AVERAGE PER UNIT COST FOR EPS BOWL				**$0.04**
	plastic	12 oz	125	$18.15	$0.15
	plastic	12 oz	1000	$51.65	$0.05
	plastic	12 oz	125	$14.18	$0.11
	AVERAGE PER UNIT COST FOR PLASTIC BOWL				**$0.10**
	paper	12 oz	125	$16.99	$0.14
	paper	12 oz	1000	$106.45	$0.11
	paper	12 oz	175	$7.55	$0.04
	AVERAGE PER UNIT COST FOR PAPER BOWL				**$0.10**
	biodegradable	12 oz	1200	$56.49	$0.05
	compostable/recyclable	12 oz	150	$19.99	$0.13
	bagasse	11.5 oz	1000	$55.00	$0.06
	AVERAGE PER UNIT COST FOR PLA BOWL				**$0.08**
take-out containers	EPS clamshell container	9"	100	$10.42	$0.10
	EPSclamshell container	6"	125	$7.10	$0.06
	EPS clamshell container	10"	200	$22.99	$0.11
	AVERAGE PER UNIT COST FOR EPS TAKE-OUT CONTAINER				**$0.09**
	paper box with folded lid	32 oz	300	$74.75	$0.25
	paper box with folded lid	48 oz	200	$63.25	$0.32
	paper box with folded lid	66 oz	200	$72.75	$0.36
	paper box with folded lid	96 oz	160	$66.50	$0.42
	paper box with folded lid	120 oz	120	$66.65	$0.56
	AVERAGE PER UNIT COST FOR PAPER TAKE-OUT CONTAINER				**$0.38**
	plastic clamshell	5"x5"	500	$75.95	$0.15
	plastic clamshell	5"5"	500	$100.75	$0.20
	plastic clamshell	5"x5"	125	$11.99	$0.10
	AVERAGE PER UNIT COST FOR PLASTIC TAKE-OUT CONTAINER				**$0.15**
	clamshell (pla, corn)	8 in	160	$58.35	$0.36
	clamshell (pla, sugarcane)	8x8	200	$42.30	$0.21
	clamshell (pla, clear)	8x8x3	250	$83.50	$0.33
	clamshell, (bagasse)	9x9x3	300	$74.50	$0.25
	AVERAGE PER UNIT COST FOR PLA TAKE-OUT CONTAINER				**$0.29**

*EPS: Expanded Polystrene

**PLA (polylactide) is a corn starch-based biodegradable polymer

***Bagasse is a sugar cane-based paper-like fiber.

Earth Resource Foundation - Food Service Price Comparison Sheet

	Foam Polystyrene	Hard Polystyrene	Plastic	Recycled Plastic	Paper: Virgin & Bleached	Paper (some recycled)	Bio Plastic	Biodegradable
8 oz. Cups	42.49	n/a	98.08		70.00			84.00
8 oz. Cup Lids	n/a	32.19	63.00					59.00
8 oz Cold Cup	40.00							84.00
9 oz. Cold Cup	40.00		62.90		170.00		74.00	
10 oz. Cold Cup	63.00		65.90				80.00	88.00
16 oz. Cold Cup	62.00		56.90			52.90	87.00	108.00
Cold Lids		57.00	20.00		n/a	n/a	40.00	40.00
9" Plates	60.00		282.88		11.18			114.00
10" Plates		799.33	132.00		86.32	238.00		133.80
10" Compartmental Plates	74.00		123.96			188.00		133.80
Hinge Containers Small	179.90		77.52					142.00
Hinge Containers Medium	86.90		155.92				337.50	190.00
Hinge Containers Large	89.90		179.92				337.50	240.00
Hinge Containers Jumbo	169.90							
8 oz Soup/Deli Container	37.80				142.00			
12 oz. Soup/Deli Container	66.00						70.41	
16 oz Soup/Deli Container	63.60							
12 oz. Soup bowls	31.80		58.00			83.00		80.00
3-Piece Cutlery	n/a	73.80	53.55		n/a	n/a	96.00	138.00

**** Price per 1,000 - click on the red triangle for sourced and detailed information. This is a small sampling of distributors.**
Better pricing can be obtained on ecofriendly products by contacting the distributors directly - contact us for list.
This list has been compiled by Earth Resource Foundation volunteers and students www.earthresource.org 949-645-5163 as of Feb 7, 2007

WHY IS THIS IMPORTANT:
This list is a rough estimate to give business, schools and governments an idea of the difference between polystyrene (Styrofoam) products and environmentally friendly products. The purpose of this list to agree that environmentally friendly are more expensive.
But we are all paying the price through our health, environmental damages*, economic sustainability and moral responsibility by buying polystyrene, non recycled plastic and virgin/bleached paper.
*over 1,000,000 marine animals die every year from plastic/ 86% of ocean trash is plastic/ there is 6 times more plastic than plankton in the Pacifc Ocean
Like any new product, the more people who support the product the more available and economically feasible it will become.
For detailed information on these issues, please visit our website or contact us at info@earthresource.org or 949-645-5163.
THIS IS YOUR OPPORTUNITY TO BE PART OF THE SOLUTION NOT THE PROBLEM!
Please help support our many youth in their "Youth Against Styrofoam" campaign to ensure a clean, healthy,and thriving environment.
What are you leaving behind?

Attachment I:

City of Monterey CEQA Study

October 22, 2008

The City of Monterey proposes to adopt an ordinance requiring the use of environmentally acceptable food packaging that prohibits the use of polystyrene food containers. Polystyrene is a plastic resin that is used to make up a wide range of consumer goods and packaging and in its "foamed" or "expanded" state is frequently used for food takeout containers.

The project's goals are to: reduce litter, protect the natural environment (especially the Monterey Bay, a National Marine Sanctuary) and use alternative packaging materials that are biodegradable, returnable or easily recycled.

A copy of the project's environmental review is attached. The City is accepting comments on the environmental review from October 24, 2008- November 24, 2008. Comments should be forwarded to:

Kimberly Cole, Principal Planner
City of Monterey
Planning, Engineering, and Environmental Compliance Division
Monterey, CA 93940

The ordinance will be scheduled for public hearing after the circulation period on the environmental review. If you have questions regarding the environmental review, please contact me at 831-646-3759.

Sincerely,

Kimberly Cole, AICP
Principal Planner

Print Form

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # _____

Project Title: Ordinance Requiring the Use of Environmentally Acceptable Food Packaging

Lead Agency: City of Monterey — Contact Person: Kim Cole

Mailing Address: 580 Pacific Street — Phone: 831-646-3759

City: Monterey — Zip: 93940 — County: Monterey

Project Location: County: Monterey — City/Nearest Community: Monterey

Cross Streets: N/A — Zip Code: _____

Lat. / Long.: ____° ____' ____" N/ ____° ____' ____" W — Total Acres: _____

Assessor's Parcel No.: _____ — Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: _____ — Waterways: _____

Airports: _____ — Railways: _____ — Schools: _____

Document Type:

CEQA:
- ☐ NOP
- ☐ Early Cons
- ☑ Neg Dec
- ☐ Mit Neg Dec
- ☐ Draft EIR
- ☐ Supplement/Subsequent EIR (Prior SCH No.) _____
- Other _____

NEPA:
- ☐ NOI
- ☐ EA
- ☐ Draft EIS
- ☐ FONSI

Other:
- ☐ Joint Document
- ☐ Final Document
- ☐ Other _____

Local Action Type:

- ☐ General Plan Update
- ☐ General Plan Amendment
- ☐ General Plan Element
- ☐ Community Plan
- ☐ Specific Plan
- ☐ Master Plan
- ☐ Planned Unit Development
- ☐ Site Plan
- ☐ Rezone
- ☐ Prezone
- ☐ Use Permit
- ☐ Land Division (Subdivision, etc.)
- ☐ Annexation
- ☐ Redevelopment
- ☐ Coastal Permit
- ☑ Other Ordinance

Development Type:

- ☐ Residential: Units _____ Acres _____
- ☐ Office: Sq.ft. _____ Acres _____ Employees _____
- ☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
- ☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
- ☐ Educational _____
- ☐ Recreational _____
- ☐ Water Facilities: Type _____ MGD _____
- ☐ Transportation: Type _____
- ☐ Mining: Mineral _____
- ☐ Power: Type _____ MW _____
- ☐ Waste Treatment: Type _____ MGD _____
- ☐ Hazardous Waste: Type _____
- ☑ Other: Ordinance Requiring the Use of Environmentally Acceptable Food Packaging

Project Issues Discussed in Document:

- ☑ Aesthetic/Visual
- ☐ Agricultural Land
- ☑ Air Quality
- ☑ Archeological/Historical
- ☑ Biological Resources
- ☐ Coastal Zone
- ☐ Drainage/Absorption
- ☐ Economic/Jobs
- ☐ Fiscal
- ☐ Flood Plain/Flooding
- ☐ Forest Land/Fire Hazard
- ☐ Geologic/Seismic
- ☐ Minerals
- ☐ Noise
- ☐ Population/Housing Balance
- ☐ Public Services/Facilities
- ☐ Recreation/Parks
- ☐ Schools/Universities
- ☐ Septic Systems
- ☐ Sewer Capacity
- ☐ Soil Erosion/Compaction/Grading
- ☐ Solid Waste
- ☐ Toxic/Hazardous
- ☐ Traffic/Circulation
- ☐ Vegetation
- ☑ Water Quality
- ☐ Water Supply/Groundwater
- ☐ Wetland/Riparian
- ☐ Wildlife
- ☐ Growth Inducing
- ☐ Land Use
- ☐ Cumulative Effects
- ☐ Other _____

Present Land Use/Zoning/General Plan Designation:

N/A - Citywide Ordinance

Project Description: *(please use a separate page if necessary)*

The City of Monterey proposes to adopt an ordinance requiring the use of environmentally acceptable food packaging that prohibits the use of polystyrene food containers. Polystyrene is a plastic resin that is used to make up a wide range of consumer goods and packaging, and in it's "foamed" or "expanded" state is frequently used to produce takeout containers for food. However, unlike many other types of packaging, littered

Note: The state Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

January 2008

(continued..)

(continued..)

polystyrene foam remains permanently in the environment where it breaks into tiny pieces and disperses widely. Polystyrene is not collected for recycling on the Central Coast.

The project's goals are to: reduce litter; protect the natural environment (especially the Monterey Bay, a National Marine Sanctuary); and use alternative packaging materials that are biodegradable, returnable or easily recycled.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X	Air Resources Board	_____	Office of Historic Preservation
_____	Boating & Waterways, Department of	_____	Office of Public School Construction
_____	California Highway Patrol	_____	Parks & Recreation
_____	Caltrans District # _____	_____	Pesticide Regulation, Department of
_____	Caltrans Division of Aeronautics	_____	Public Utilities Commission
_____	Caltrans Planning (Headquarters)	_____	Reclamation Board
_____	Coachella Valley Mountains Conservancy	_____	Regional WQCB # _____
_____	Coastal Commission	_____	Resources Agency
_____	Colorado River Board	_____	S.F. Bay Conservation & Development Commission
_____	Conservation, Department of	_____	San Gabriel & Lower L.A. Rivers and Mtns Conservancy
_____	Corrections, Department of	_____	San Joaquin River Conservancy
_____	Delta Protection Commission	_____	Santa Monica Mountains Conservancy
_____	Education, Department of	_____	State Lands Commission
_____	Energy Commission	_____	SWRCB: Clean Water Grants
_____	Fish & Game Region # _____	_____	SWRCB: Water Quality
_____	Food & Agriculture, Department of	_____	SWRCB: Water Rights
_____	Forestry & Fire Protection	_____	Tahoe Regional Planning Agency
_____	General Services, Department of	_____	Toxic Substances Control, Department of
_____	Health Services, Department of	_____	Water Resources, Department of
_____	Housing & Community Development		
X	Integrated Waste Management Board	_____	Other _____
_____	Native American Heritage Commission	_____	Other _____
_____	Office of Emergency Services		

Local Public Review Period (to be filled in by lead agency)

Starting Date October 24, 2008 Ending Date November 24, 2008

Lead Agency (Complete if applicable):

Consulting Firm: N/A
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: _____
Address: _____
City/State/Zip: _____
Phone: _____

Signature of Lead Agency Representative: _____ **Date:** 10/22/2008

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

City of Monterey
Environmental Checklist Form

1. **Project title:** Ordinance Requiring the Use of Environmentally Acceptable Food Packaging

2. **Lead agency name and address:** City of Monterey, Planning, Engineering, and Environmental Compliance Division, Monterey, CA 93940

3. **Contact person and phone number:** Kimberly Cole, 831-646-3759

4. **Project location:** Citywide

5. **Project sponsor's name and address:** Angela Brantley, Solid Waste Program Manager, City of Monterey, 580 Pacific Street, Monterey, CA 93940

6. **General plan designation:** All designations

7. **Zoning:** All zoning districts

8. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**

   The City of Monterey proposes to adopt an ordinance requiring the use of environmentally acceptable food packaging that prohibits the use of polystyrene food containers.

   Polystyrene is a plastic resin that is used to make up a wide range of consumer goods and packaging and in its "foamed" or "expanded" state is frequently used to produce takeout containers for food. However, unlike many other types of packaging, littered polystyrene foam remains permanently in the environment where it breaks into tiny pieces and disperses widely. Polystyrene is not collected for recycling on the Central Coast.

   The project's goals are to: reduce litter; protect the natural environment (especially the Monterey Bay, a National Marine Sanctuary); and use alternative packaging materials that are biodegradable, returnable or easily recycled.

9. **Surrounding land uses and setting: Briefly describe the project's surroundings:**

   The project site is the City of Monterey, a coastal community located in Central California. The Pacific Ocean adjacent to the City is recognized as the Monterey Bay National Marine Sanctuary, a federally protected marine area. The area is rich in natural resources both on the land and sea. A location map is attached.

   The City encompasses eight square miles and the population is approximately 33,000 persons. The City is a destination for visitors.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**
    None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

.... Aesthetics
.... Agriculture Resources

.... Air Quality
.... Biological Resources
.... Cultural Resources
.... Geology /Soils
.... Hazards & Hazardous Materials
.... Hydrology / Water Quality
.... Land Use Planning
.... Mineral Resources
.... Noise
.... Population / Housing
.... Public Services
.... Recreation
.... Transportation/Traffic
.... Utilities / Service Systems
.... Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency) On the basis of this initial evaluation:

..... X ..... I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

.... I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

.... I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

.... I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

.... I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Public Review Period

Begins: October 24, 2008
Ends: November 24, 2008

Public Meeting

Date: To Be Determined
Time: 4:00 PM
Location: City of Monterey Council Chambers
Few Memorial Hall of Records
Reviewing Body: Planning Commission

Anyone interested in this matter is invited to comment on the document by written response or by personal appearance at the hearing.

Signature _____ **Date:** 10/21/08

Printed name Kimberly Cole, AICP

Title Principal Planner

Address: City of Monterey, Planning, Engineering, and Environmental Compliance Division, Monterey, CA 93940

Phone Number: (831) 646-3759 **Fax Number:** 831-646-3408

Attachments: 1. Location Map
2. Ordinance

c: City Council
Planning Commission
POST (Outside City Clerk's Office)
County Clerk, 240 Church Street, Salinas, CA 93901
Linda Connolly, Department of Fish and Game Regional Office, 1234 East Shaw Avenue, Fresno, CA 93710
California Native Plant Society, Mary Ann Matthews, 2 Via Milpitas, Carmel Valley, CA 93924
Sierra Club Ventana Chapter, c/o Rita Dalessio, Chair, 16 Via Las Encinas, Carmel Valley, CA 93924
League of Women Voters, Jean Esary, 4078 El Bosque Drive, Pebble Beach, CA 93953
Calif. Regional Water Quality Control, 895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401
Monterey County Planning Division, 168 W. Alisal Street, 2nd Floor, Salinas, CA 93902
Molly Erickson, P.O. Box 2448, Monterey, CA 93942-2448
Monterey District Superintendent, Department of Parks and Recreation, 2211 Garden Road, Monterey, CA 93940
Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940
Monterey Peninsula Water Management District, P.O. Box 85, Monterey, CA 93942
Monterey Regional Waste Management District, P.O. Box 1670 Marina, CA 93933
Monterey City Disposal Service, 10 Ryan Ranch Road, Monterey, CA 93940
Association of Monterey Bay Area Governments (AMBAG), P.O. Box 809, Marina, CA 93933
Office of Planning and Research, P.O. Box 3044, Sacramento, CA 95812-3044 (15 copies + coversheet)
Monterey Commercial Property Owners (MCPOA), Bob Massaro, P.O. Box 1953, Monterey, CA 93942
Monterey Peninsula Chamber of Commerce, 380 Alvarado Street, Monterey, CA 93940
American Chemistry Council, 1121 L Street, Suite 609, Sacramento, CA 95814
Monterey Bay National Marine Sanctuary, 299 Foam Street, Monterey, CA 93940
Eileen Angelos, Monterey Bay Aquarium, 886 Cannery Row, Monterey, CA 93940
California Lodging Industry Association, P.O. Box 15918, Sacramento, CA 95852
Laura Kasa, Save Our Shores, 345 Lake Avenue, Suite A, Santa Cruz, CA 95062
Sonya Newlyn, 310 Nobel Drive, Santa Cruz, CA 95060
Mr. Rick Lawrance, California Lodging Industry Association, P.O. Box 15918
Cypress Bake Shop, 2233 North Fremont Street, Monterey, CA 93940
7-Eleven, 2301 North Fremont Street, Monterey, CA 93940
Quality Inn, 2075 North Fremont Street, Monterey, CA 93940
Happy Dragon Restaurant, 2329 North Fremont Street, Monterey, CA 93940
Comfort Inn Monterey Bay, 2050 North Fremont Street, Monterey, CA 93940
Norma jean's Restaurant, 2339 North Fremont, Monterey, CA 93940
Black Bear Diner, 7877 Wren Avenue, Gilroy, CA 95020
Casa Verde Inn, 2113 North Fremont Street, Monterey, CA 93940
Subway, 2440 North Fremont Street, #100, Monterey, CA 93940
Bayside Inn, 2055 North Fremont Street, Monterey, CA 93940
Rodeway Inn, 2841 North Fremont Street, Monterey, CA 93940
Monterey Econo Lodge, 2041 Fremont Street, Monterey, CA 93940
Monterey Donuts, 2240 North Fremont Street, Monterey, CA 93940
Q Stop Market, 2407 Fremont Street, Monterey, CA 93940
Simone Mortan, 161 Snyder Avenue, Aromas, CA 95004
Roberta Parkinson, 9 Del Mesa Carmel, Carmel, CA 93923

Elsa Vineberg, 9 Del Mesa Carmel, Carmel, CA 93923
Jose's Mexican Food, 638 Wave Street, Monterey, CA 93940
Great Wall, 724 Abrego Street, Monterey, CA 93940
Kava japanese Cuisine, 487 Alvarado Street, Monterey, CA 93940
Monterey Crepe Company, 601 Wave Street, Monterey, CA 93940
Sea Harvest Fish Market and Restaurant, 598 Foam Street, Monterey, CA 93940
Willys Smokehouse Restaurant, 95 Prescott Avenue, Monterey, CA 93940
NaRa Korea Restaurant, 420 Tyler Street, Monterey, CA 93940
La Familia Restaurant, 738 Lighthouse, Monterey, CA 93940
Thai Restaurant, 731 A Munras Avenue, Monterey, CA 93940
Anna Masteller, 547 Asilomar Blvd. Pacific Grove, CA 93950
Laurie Warner, 1031 Crest Avenue, Pacific Grove, CA 93950
Robert Frischmuth, 283 Grove Acre Avenue, Pacific Grove, CA 93950
Charla Britt, 761 Jefferson Street, Monterey, CA 93940
Emily Nicholl, 614 Van Buren Street #10, Monterey, CA 93940
Paul Seagal, 1109 Kenet Place, Pacific Grove, CA 93950

Note: A copy of this document, as well as informational sources referenced herein, can be reviewed at the City of Monterey Planning, Engineering, and Environmental Compliance Division.

Sources:

1. City of Monterey, *General Plan*
2. City of Monterey, *Archaeology Records*
3. City of Monterey, *Zoning Ordinance*
4. Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008
5. Monterey Bay Unified Air Pollution Control District, *CEQA Air Quality Guidelines*, February 2008
6. Paul Michel Superintendent, *Monterey Bay National Marine Sanctuary Letter*, August 12, 2008
7. Charles Moore, Shelly Moore, Molly Leecaster and Stephen Weisberg, *A Comparison of Plastic and Plankton in the North Pacific Central Gyre*
8. U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007
9. United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007
10. Monterey Bay National Marine Sanctuary, *List of Special Status Species*, 2008
11. Flood Insurance Rate Maps
12. Monterey Peninsula Airport, FAR Part 150 Airport Noise Exposure Study
13. Franklin Associates, *LTD,Life Cycle Inventory of Foam and Coated Paperboard Plates*, May 9, 2008
14. William Merry, Monterey Regional Waste Management District Letter, October 21, 2008

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION
I. AESTHETICS – Would the project:					
a) Have a substantial adverse effect on a scenic vista?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division, City of Monterey General Plan Map 2
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X	City of Monterey General Plan, Urban Design Element
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-c. The City of Monterey is located adjacent to the Monterey Bay National Marine Sanctuary, a beautiful coastal resource. Scenic highways include Highways 1 and 68. There are numerous historic sites, including two National Historic Landmark Districts. Monterey is recognized as a *Preserve America Community* and the National Trust designated Monterey as one of its *Twelve Distinctive Destinations*. The City of Monterey is a unique community with an abundance of natural and manmade scenic resources. Many of these scenic resources are identified in the City of Monterey General Plan (Map 2, Showing Special Places). Food service-ware made from polystyrene is not biodegradable, returnable or easily recyclable. It breaks into small and smaller pieces. Polystyrene is also highly durable and persists longer than other types of refuse. City of Monterey Public Works staff reports that it litters the ocean, parks and public places, streets and roads, waterways, storm drains and beaches. Even when polystyrene is properly disposed of in a trash can, it is lightweight and may be picked up by the wind and becomes litter. The proposed ordinance bans polystyrene food service-ware; thereby reducing its prevalence and the amount of "small" litter that is difficult to collect in the City's scenic areas. The project will have beneficial impacts on the City by reducing litter and keeping Monterey a special place to live and visit. d. The project will not create a new source of substantial light or glare.					
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-c. The City does not contain any agricultural resources or the potential for agricultural production. The proposed ordinance has no impact.					
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?			X		City of Monterey Planning, Engineering, and Environmental Compliance Division; Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008; Monterey Bay Unified Air Pollution Control District, *CEQA Air Quality Guidelines*, February 2008
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X		City of Monterey Planning, Engineering, and Environmental Compliance Division; Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008; Monterey Bay Unified Air Pollution Control District, *CEQA Air Quality Guidelines*, February 2008; Franklin Associates *LTD,Life Cycle Inventory of Foam and Coated Paperboard Plates*, May 9, 2008
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X		City of Monterey Planning, Engineering, and Environmental Compliance Division; Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008; Monterey Bay Unified Air Pollution Control District, *CEQA Air Quality Guidelines*, February 2008; Franklin Associates *LTD,Life Cycle Inventory of Foam and Coated Paperboard Plates*, May 9, 2008
d) Expose sensitive receptors to substantial pollutant concentrations?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division; Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008; Monterey Bay Unified Air Pollution Control District, *CEQA*

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION
					Air Quality Guidelines, February 2008
e) Create objectionable odors affecting a substantial number of people?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division; Monterey Bay Unified Air Pollution Control District, *2008 Air Quality Management Plan for the Monterey Bay Region*, August 2008; Monterey Bay Unified Air Pollution Control District, *CEQA Air Quality Guidelines*, February 2008

Discussion, where applicable:

a. The project will not obstruct the implementation of any air quality plan.

b-c. The project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Moreover, it will not result in a cumulative net increase for any criteria pollutant for which the project region is non-attainment.

The American Chemistry Council submitted a report (Franklin Associates LTD, *Life Cycle Inventory of Foam and Coated Paperboard Plates*, May 9, 2008) evaluating a wide range of issues including: energy consumed, fossil and no-fossil energy use, and global warming impact. The report generally concludes that polystyrene foam plates require less energy to produce and generate less green house gases than a bleached paperboard plate with low-density polyethylene coating, and a bleached paperboard plate with polystyrene coating. All of these materials are prohibited by the new ordinance.

The City of Monterey concludes the greenhouse gas impact of using food service-ware that is biodegradable, compostable or recyclable, is less than significant because the City is a small jurisdiction in terms of geographic area (8 square miles), population (33,000 people), and number of businesses (approximately 300) using polystyrene. In addition, the Monterey Peninsula Landfill operated by the Monterey Regional Waste Management District, where the City's waste is discarded has a landfill gas recovery system. The system recovers methane and it is converted into electricity; thereby offsetting the local demand for other nonrenewable energy sources. Recyclable materials are transported to the City's Materials Recovery Facility where recyclables are ultimately sent to recycling plants and reused as new raw materials. Recycling reduces the demand for new material extraction. As a result, the energy consumed and greenhouse gases resulting based on the total volume of containers used in our community, gas recovery system, and reuse of recycled materials is less than significant.

Cumulatively, this air quality impact is less than significant because existing businesses use polystyrene products that produce greenhouse gases as documented in the *Life Cycle Inventory of Foam and Coated Paperboard Plate Study*. The change to materials that are biodegradable, returnable or easily recycled has a less than signfiicant impact due to the reasons stated above: volume of containers used in our community, gas recovery system and reuse of recycled materials.

It is also important to note that the City's primary goal in implementing the new ordinance is to reduce the amount of litter and the impact to the natural environment (particularly marine environment), a vital component of the City's economy and quality of life.

d. Styrene exposure may occur short or long term, resulting in both acute and chronic effects. According to a summary of styrene hazards issued by the U.S. Environmental Protection Agency (2007), "Acute (short term) exposure to styrene in humans results in mucous membrane and eye irritation, and gastrointestinal effects. Chronic (long-term) exposure to styrene in humans results in effects on the central nervous system (CNS), such as headache, fatigue, weakness, and depression, CSN dysfunction, hearing loss, and peripheral neuropathy." The project therefore results in a beneficial impact by reducing exposure of styrene concentrations to sensitive receptors, such as children.

e. The project will not create significant objectionable odors.

IV. BIOLOGICAL RESOURCES – Would the project:					
a) Have a substantial adverse effect, either directly or through				X	City of Monterey Planning, Engineering, and Environmental

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION
habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					Compliance Division; Paul Michel Superintendent, *Monterey Bay National Marine Sanctuary Letter*, August 12, 2008; Charles Moore, Shelly Moore, Molly Leecaster and Stephen Weisberg , *A Comparison of Plastic and Plankton in the North Pacific Central Gyre;* Monterey Bay National Marine Sanctuary, *List of Special Status Species*, 2008; U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007; United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division; Paul Michel Superintendent, *Monterey Bay National Marine Sanctuary Letter*, August 12, 2008; Charles Moore, Shelly Moore, Molly Leecaster and Stephen Weisberg , *A Comparison of Plastic and Plankton in the North Pacific Central Gyre;* Monterey Bay National Marine Sanctuary, *List of Special Status Species*, 2008; U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007; United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division; Paul Michel Superintendent, *Monterey Bay National Marine Sanctuary Letter*, August 12, 2008
e) Conflict with any local policies or ordinances protecting biological				X	City of Monterey, Zoning Ordinance, Chapter 37,

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION
resources, such as a tree preservation policy or ordinance?					Preservation of Trees and Shrubs
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
g) Will the project remove significant trees or significant groups of trees?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
h) Will the project threaten rare and endangered species of marine animals?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division

SUBJECT AREA:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	SUPPORTING INFORMATION

Discussion, where applicable :
a-h. The City of Monterey is uniquely located on the Monterey Bay and large parts of the City are forested with Monterey Pines and Monterey Cypress. This setting supports a wide variety of flora and fauna, much of which is considered sensitive species. The City of Monterey General Plan (Map 8) identifies the following special status species: Black Legless Lizard, Central Maritime Chaparral, California Tiger Salamander, Carmel Valley Bush Mallow, Coast Wall Flower, Eastwood's Goldenbush, Hickman's Cinquefoil, Hooker's Manzanita, Hickman's Onion, Kellogg's Horkelia, Monarch Butterfly, Monterey Pine, Monterey Pine Forest, Monterey Spineflower, Pacific Grove Clover, Pine Rose, Robust Spinflower, Smith's Blue Butterfly, Seaside Bird's Beak, Santa Cruz Clover, Santa Cruz Microseris, Sand Gilia, Sandmat Manzanita, Tor Manzanita, Yadon's Rein Orchid.

The Monterey Bay National Marine Sanctuary is a federally protected marine area offshore of California's central coast. The sanctuary is one of the most productive marine areas in the world with 33 species of marine mammals, 94 species of seabirds, 345 species of fish, 4 species of turtles, 31 phyla of invertebrates and more than 450 species of algea. There are multiple endangered species according to the National Marine Sanctuary (Source: Monterey Bay National Marine Sanctuary, *List of Special Status Species*, 2008).

Food service-ware made from polystyrene is not biodegradable, returnable or easily recyclable. It breaks into small and smaller pieces. Polystyrene is also highly durable and persists longer than other types of refuse because it does not degrade. It litters the ocean, parks and public places, streets and roads, waterways, storm drains and beaches. Even when polystyrene is properly disposed of in a trash can, it is lightweight and may be picked up by the wind and becomes litter.

The Monterey Bay National Marine Sanctuary (MBNMS) indicates that, "In the marine environment, foamed polystyrene is of particular concern because it is light, it floats, and it is highly visible. In addition, it breaks into small pieces, increasing the change of ingestion by wildlife. Polystyrene pieces, which look like food to many species, is frequently ingested by wildlife and results in choking, reduced appetite, reduced nutrient absorption, and starvation. The MBNMS beach survey program, BeachCOMBERS, commonly discovers plastics and polystyrene that have been ingested by seabirds. Using seabirds collected by the BeachCOMBERS program, researchers at Moss Landing Marine Laboratories analyzed the stomach contents of 190 Northern fulmars, a medium sized seabird, collected along Monterey Bay beaches in 2003-2004, and found that 71% of the birds had plastic in their stomachs." (Source: Paul Michel Superintendent, *Monterey Bay National Marine Sanctuary Letter*, August 12, 2008).

The Environmental Protection Agency has found that there are short and long term adverse health effects associated with exposure to styrene (Source: U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007; United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007). While it is difficult to quantify this impact, it is clearly beneficial to remove it from the City's ecosystems where large numbers of plants and animals flourish and where toxins can bio-accumulate in the food chain.

The proposed ordinance will help reduce the litter deposited in the ocean because the alternative packaging materials can be recycled locally and do not as easily break into the "small and smaller" pieces that cause the problems described above.

V. CULTURAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5? (Intent is to address impact to onsite historic resources and adjacent historic resources.)				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?				X	City of Monterey Archaeology Records
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	City of Monterey Archaeology Records
d) Disturb any human remains, including those interred outside of formal cemeteries?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-d. The City contains a wide variety of historic resources and archaeological sites. The City's historic resources are nationally significant and maintaining a clean environment is important. Food service-ware made from polystyrene is not biodegradable, returnable or easily recyclable. It breaks into small and smaller pieces. Polystyrene is also highly durable and persists longer than any other type of refuse. Even when polystyrene is properly disposed of in a trash can, it is lightweight and may be picked up by the wind and becomes litter. By reducing the amount of polystyrene, the City's historic sites could be cleaner and more easily maintained.					
VI. GEOLOGY AND SOILS – Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
ii) Strong seismic ground shaking?				X	City of Monterey General Plan Safety Element
iii) Seismic-related ground failure, including liquefaction?				X	City of Monterey General Plan Safety Element
iv) Landslides?				X	City of Monterey General Plan Safety Element
b) Result in substantial soil erosion or the loss of topsoil?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral				X	City of Monterey General Plan Safety Element

spreading, subsidence, liquefaction or collapse?					
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-e. The project does not impact geological issues.					
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division; U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007; United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	City of Monterey Fire Department
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
g) Impair implementation of or physically interfere with an				X	City of Monterey Police and Fire Departments

adopted emergency response plan or emergency evacuation plan?					
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or when residences are intermixed with wildlands?				X	City of Monterey General Plan Figure 14
Discussion, where applicable: a-d. The project will prohibit polystyrene food service ware. The Environmental Protection Agency has found that there are short and long term adverse health effects associated with exposure to styrene (Source: U.S. Department of Health and Human Services Public Health Service Agency for Toxic Substances and Disease Registry, *ToxGuide for Styrene,* September 2007; United States Environmental Protection Agency, *Technology Transfer Network Air Toxics Web Site*, November 6, 2007). The project will reduce the amount of polystyrene resulting in a positive impact on the environment. (Also, see section III Air Quality, item d) e-f. The project does not affect air travel or flights. g. The project will not interfere with any emergency response plan. h. The City of Monterey General Plan designates areas prone to wildland fires. The project does not affect this issue.					
VIII. HYDROLOGY AND WATER QUALITY – Would the project:					
a) Violate any water quality standards or waste discharge requirements?				X	City of Monterey Public Works Department
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X	City of Monterey Public Works Department
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X	City of Monterey Public Works Department
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X	City of Monterey Public Works Department

f) Otherwise substantially degrade water quality?				X	City of Monterey Public Works Department
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X	Flood Insurance Rate Map
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				X	Flood Insurance Rate Map
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X	City of Monterey Public Works Department
j) Cause inundation by seiche, tsunami, or mudflow?				X	City of Monterey General Plan, Figure 13
Discussion, where applicable: a,f. Food service-ware made from polystyrene is not biodegradable, returnable or easily recyclable. It breaks into small pieces and because it is lightweight may be picked up by the wind, even when it has been placed in a waste receptacle. This litter ultimately floats or is blown into the Monterey Bay, a National Marine Sanctuary, where several plants and animals live (See Biological Section). The project will prohibit polystyrene food service-ware; thereby, reducing the amount of "small", permanent litter in the bay and possibly improve water quality. Polystyrene is known to cause acute and chronic health symptoms (Also, see section III Air Quality, item d). b. The project does not affect water supply. c-e. The project does not affect drainage capacity. g-j. The City's flood hazard areas do not affect the project.					
IX. LAND USE AND PLANNING – Would the project:					
a) Physically divide an established community?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X		City of Monterey General Plan; City of Monterey Zoning Ordinance
c) Conflict with any applicable habitat conservation or natural community conservation plan?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division

Discussion, where applicable:

a. The project does not divide an established community.

b. The City's General Plan recognizes the value of Monterey's unique environmental setting. The General Plan encourages the City to:

Goal b.1. Protect creeks, lakes, wetlands, beaches, and Monterey Bay from pollutants discharged to the storm drain system.

Goal d. Protect the character and composition of existing native vegetative communities. Conserve, manage and restore habitats for endangered species and protect biological diversity represented by special status plant and wildlife species.

As stated previously, food service-ware made from polystyrene is not biodegradable, returnable or easily recyclable. It breaks into small pieces and because it is lightweight may be picked up by the wind even when it has been placed in a waste receptacle. Polystyrene can also be found in the City's creeks, lakes, beaches and bay. This litter ultimately floats or is blown into the Monterey Bay, a National Marine Sanctuary, where several plants and animals live. The project will prohibit polystyrene food service-ware; thereby, improving the environment.

The project is consistent with the City's land use policies.

c. The project does not conflict with any applicable habitat conservation or natural community conservation plan.

X. MINERAL RESOURCES – Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division

Discussion, where applicable:
a-b.No mineral resources exist in the City of Monterey.

XI. NOISE – Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X	City of Monterey General Plan, Noise Element
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport,				X	Monterey Peninsula Airport, FAR Part 150 Airport Noise Exposure Map

would the project expose people residing or working in the project area to excessive noise levels?					
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X	City of Monterey, Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a,d. The project does not expose people to noise levels or create a substantial temporary periodic increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. b. The project will not create substantial ground vibration or noise. c. No substantial permanent increase in ambient noise levels is anticipated from the project. e. The noise impact area of the Monterey Peninsula Airport will not affect the project. f. The project is not located within the vicinity of a private airstrip.					
XII. POPULATION AND HOUSING – Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a. The project will not induce population growth. b-c. The project will not displace housing units or people.					
XIII. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a) Fire protection?				X	City of Monterey Fire Department
b) Police protection?				X	City of Monterey Police Department
c) Schools?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
d) Parks?				X	City of Monterey Parks and Recreation Division
e) Other public facilities?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-c. The project does not impact fire, police, school or other public facilities. d. The project could reduce the amount of "small" litter in the City; thereby improving the appearance of park facilities, greenbelts, and ocean. e. See Section XVI Utilities and Service Systems, f-g.					
XIV. RECREATION –					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that				X	City of Monterey, Planning, Engineering, and Environmental Compliance Division

substantial physical deterioration of the facility would occur or be accelerated?					
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				X	City of Monterey, Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a-b. The project could reduce the amount of "small" litter in the City; thereby improving the appearance of park facilities, greenbelts, and ocean.					
XV. TRANSPORTATION / TRAFFIC – Would the project:					
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X	City of Monterey Public Works Department, Traffic Division
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X	City of Monterey Public Works Department, Traffic Division
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X	Monterey Peninsula Airport District
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	City of Monterey Public Works Department, Traffic Division
e) Result in inadequate emergency access?				X	City of Monterey Fire and Police Departments
f) Result in inadequate parking capacity?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X	City of Monterey General Plan, Circulation Element
Discussion, where applicable: a-b. The project will not affect traffic patterns. c. The project will not change air traffic patterns. d. The project will not increase hazards due to design features or incompatible uses. e. The project will not affect emergency access to the City. f. The project will not affect the City's parking supply. g. The project will not conflict with adopted policies or programs supporting alternative transportation.					
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control				X	City of Monterey Public Works Department

Board?					
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	City of Monterey Public Works Department
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	City of Monterey Public Works Department
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X		William Merry, Monterey Peninsula Waste Management District Letter, October 21, 2008
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X		City of Monterey Planning, Engineering, and Environmental Compliance Division

Discussion, where applicable:
a-e.No significant impact to sewer, wastewater, water, or drainage facilities will occur.
f-g. The total amount of food service packaging will not be affected by this ordinance because the number of food service providers (restaurants, etc.) is not changing. By replacing polystyrene with products that will biodegrade or can be recycled locally, it will likely result in a reduction in the total amount of food packaging that ultimately reaches the landfill. In addition, because polystyrene is easily wind-borne as refuse vehicles dump their loads at the landfill, a reduction in food packaging reaching the landfill may help reduce wind-borne litter.

The City of Monterey owns and operates a Materials Recovery Facility through a franchised contract. The City's Solid Waste Program Manager indicates that the facility can accommodate additional recyclables. This project has beneficial impact on the Material Recovery Facility because the City profits from the sale of recyclables.

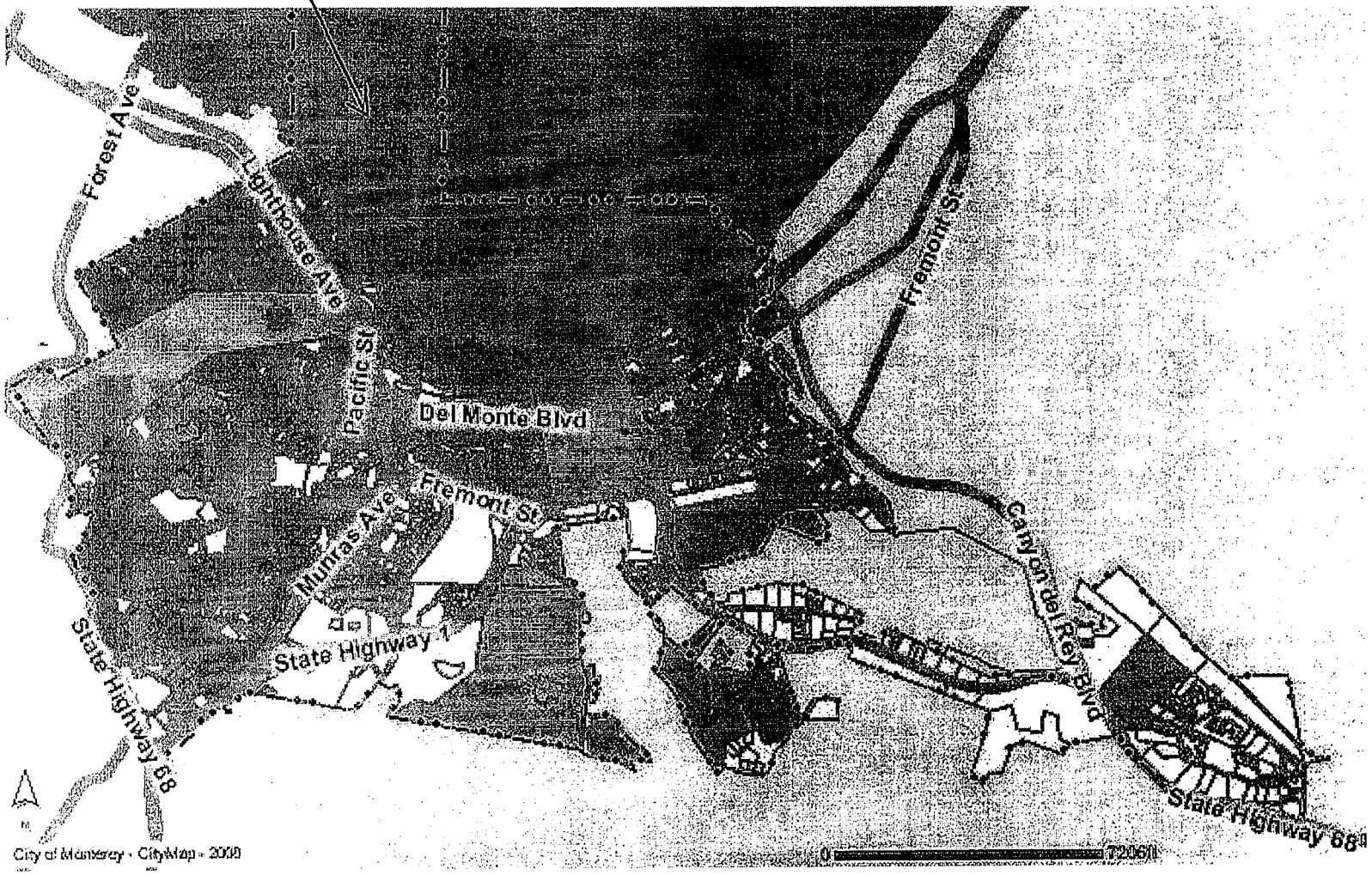
In addition, the Monterey Regional Waste Management District has remaining landfill airspace capacity exceeding 100 years, and has an award winning landfill gas collection and recovery system and a renewable energy production facility. If biodegradable products end up in the landfill, they contribute to the production of landfill gas and energy, and would not significantly impact the ability of the facility to handle the material or the capacity of the landfill.

XVII. MANDATORY FINDING OF SIGNIFICANCE –

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below				X	City of Monterey Planning, Engineering, and Environmental Compliance Division

self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?					
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				X	City of Monterey Planning, Engineering, and Environmental Compliance Division
Discussion, where applicable: a. The project will not substantially degrade the quality of the environment as documented in this initial study. b. There is no individual or cumulative impacts which are significant. c. The project does not have impacts, which will adversely effect human beings either directly or indirectly.					

Location Map
City of Monterey Boundaries



ORDINANCE NO. 08-____C.S.

AN ORDINANCE OF THE CITY OF MONTEREY AMENDING CHAPTER 14 BY ADDING ARTICLE 3 REQUIRING THE USE OF ENVIRONMENTALLY ACCEPTABLE FOOD PACKAGING

THE COUNCIL OF THE CITY OF MONTEREY DOES ORDAIN, as follows:

SECTION 1:

WHEREAS, The Monterey Bay National Marine Sanctuary is a federally protected marine area offshore of California's Central Coast. The sanctuary is one of the most productive marine areas in the world with 33 species of marine mammals, 94 species of seabirds, 345 species of fish, 4 species of turtles, 31 phyla of invertebrates and more than 450 species of algae. There are numerous endangered species according to the National Marine Sanctuary.

WHEREAS, Polystyrene is a plastic resin that is used to make up a wide range of consumer goods and packaging, and in its "foamed" or "expanded" state is frequently used to produce takeout containers for food. However, unlike many other types of packaging, littered polystyrene foam remains permanently in the environment where it breaks into tiny pieces that disperse widely. Polystyrene foam means and includes expanded polystyrene (EPS), which is not collected for recycling in the Central Coast region because it is not economically viable. There are presently no manufacturers in the region using this material as a feedstock.

WHEREAS, The City of Monterey has seen first-hand the impact of polystyrene foam plastic litter in our storm drains, in our fields, on our roadways and highways, in our rivers, in the ocean and on our beaches. Banning polystyrene foam take-out packaging locally will help to address marine pollution by requiring the use of environmentally preferable alternatives while helping to educate business owners and citizens on the positive impact their packaging choices can make.

WHEREAS, the City of Monterey has a responsibility to protect its natural environment, its economy, and the health of its citizens. Solid waste that is non-degradable or non-recyclable poses an acute problem for any environmentally and financially responsible solid waste management program.

WHEREAS, food and beverage packaging constitutes a significant and growing portion of the waste in the City. Laws, policies and regulations pertaining to disposable food service-ware are a vital component in the City of Monterey's efforts to reduce the amount of disposed waste.

WHEREAS, food service-ware made from polystyrene foam is not biodegradable, returnable, or practically recyclable. Polystyrene foam breaks into

smaller pieces and, because it is lightweight, may be picked up by the wind even when it has been placed in a waste receptacle.

WHEREAS, a prevalence of polystyrene foam packaging, which is highly durable and persists longer than any other type of refuse, litters parks and public places, streets and roads, waterways, storm drains and beaches. This litter ultimately floats, or is blown into the Monterey Bay.

WHEREAS, it is not economically feasible at this time to recycle polystyrene foam in or near the City of Monterey.

NOW THEREFORE, the Monterey City Council declares as follows:

SECTION 2: A new Article 3 is hereby added to Chapter 14 of the Monterey City Code, commencing with section 14-15, as set forth below:

"ARTICLE 3

Sec. 14-15. Definitions. Unless otherwise expressly stated, whenever used in this Article the following terms shall have the meanings set forth below:

(a) "Affordable" means that a biodegradable, compostable or recyclable product may cost up to 15 percent more than the purchase cost of the non-biodegradable, non-compostable or non-recyclable alternative(s).

(b) "ASTM Standard" means meeting the standards of the American Society for Testing and Materials (ASTM) International Standards D6400 or D6868 for biodegradable and compostable plastics, as those standards may be amended.

(c) "Biodegradable" means the ability of organic matter to break down from a complex to a more simple form.

(d) "City Facility" means any building, structure or vehicle owned and operated by the City of Monterey, its agents, agencies, and departments.

(e) "City Contractor" means any person or entity that has a contract with the City of Monterey for work or improvement to be performed, for a franchise, concession, for grant monies, goods and services, or supplies to be donated or to be purchased at the expense of the City.

(f) "Compostable" means all the materials 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 disposable food service ware must meet ASTM-Standards for compostability and any bio-plastic or plastic-like product must be clearly labeled, preferably with a color symbol, to allow proper identification such that the collector and processor can easily

distinguish the ASTM standard compostable plastic from non-ASTM standard compostable plastic.

(g) "Director" shall mean the Deputy City Manager Plans and Public Works, or his/her designee.

(h) "Disposable Food Service Ware" means single-use disposable products used in the restaurant and food service industry for serving or transporting prepared ready-to-consume food or beverages. This includes but is not limited to plates, cups, bowls, trays and hinged or lidded containers. This does not include single-use disposable items such as plastic straws, cup lids, or utensils.

(i) "Food Provider" means any vendor located or providing food within the City of Monterey which provides prepared food for public consumption on or off its premises and includes without limitation any store, shop, sales outlet, restaurant, grocery store, supermarket, delicatessen, catering truck or vehicle, or any other person who provides prepared food; and any organization, group or individual which regularly provides food as a part of its services.

(j) "Person" means an individual, business, event promoter, trust, firm, joint stock company, corporation, non-profit, including a government corporation, partnership, or association.

(k) "Polystyrene Foam" means and includes expanded polystyrene that is a thermoplastic petrochemical material utilizing a styrene monomer and processed by any number of techniques including, but not limited to, fusion of polymer spheres (expandable bead polystyrene), injection molding, form molding, and extrusion-blow molding (extruded foam polystyrene). To include but not limited to Polystyrene Foam Plate, bleached paperboard plate with low density polyethylene coating and bleached paperboard plate with polystyrene coating.

(l) "Prepared Food" means food or beverage prepared for consumption on the food provider's premises, using any cooking or food preparation technique. This does not include any raw uncooked meat, poultry, fish or eggs unless provided for consumption without further food preparation. It is a policy goal of this City to encourage supermarkets and other vendors to eliminate the use of polystyrene foam for packaging unprepared food.

(m) "Recyclable" means any material that is accepted by the City or special district recycling program, including, but not limited to, paper, glass, aluminum, cardboard and plastic bottles, jars and tubs. Recyclable plastics comprise those plastics coded with the recycling symbols #1 through #5.

(n) "Retail Food Establishment" shall include but is not limited to, any place where food is prepared to include any fixed or mobile restaurant, drive-in, coffee shop, public food market, produce stand, or similar place which food or drink is

prepared for sale or for service on the premises or elsewhere.

(o) "Special Event" means any special event, regardless of size, sponsored by any commercial or non-profit organization, group, or individual, which is held within the City of Monterey and at which food and/or drinks are being provided for public consumption. This definition shall apply whether such food and/or drinks are prepared within or outside of the Monterey City limits.

Sec. 14-16. Prohibited Disposable Food Service Ware.

(a) Food providers within the City of Monterey shall not provide prepared food in any disposable food service ware that contains or utilizes polystyrene foam.

(b) Disposable food service ware that contains polystyrene foam is prohibited from use in all City of Monterey facilities.

(c) Promoters and participants of special events as defined in this Article are prohibited from providing prepared food in any disposable food service ware that contains or utilizes polystyrene foam.

(d) The prohibition of disposable food service ware containing or utilizing polystyrene foam shall also apply to all City of Monterey contractors in the performance of City of Monterey contracts and special events sponsored by the City.

(e) It shall also be a policy goal of the City that business establishments located outside the City limits, but that may sell their products within the City of Monterey, shall not package any food product in any package that contains or utilizes polystyrene foam. The City of Monterey shall promote and encourage, on a voluntary basis, the elimination of all polystyrene foam disposable food service ware by these outside business establishments.

Sec. 14-17. Required Biodegradable, Compostable, Or Recyclable Disposable Food Service Ware.

(a) All food providers within the City of Monterey utilizing disposable food service ware shall use only biodegradable, compostable or recyclable products, unless there is no affordable alternative available as determined by the Director.

(b) All City of Monterey facilities utilizing disposable food service ware shall use only products that are biodegradable, compostable or recyclable.

(c) All promoters and participants in special events utilizing disposable food service ware shall use only products that are biodegradable, compostable or recyclable.

(d) City of Monterey contractors and promoters or participants in City-sponsored

special events utilizing disposable food service ware shall also be required to use only biodegradable, compostable, or recyclable products while performing under a City of Monterey contract or permit.

Sec. 14-18. Exemptions For Biodegradable, Compostable Or Recyclable Food Service Ware.

(a) There are no exemptions that allow for the use of polystyrene foam disposable food service ware by food providers within the City of Monterey.

(b) The City of Monterey may exempt a food provider from the requirements set forth in sections 14-16 and 14-17 of this Article for a non-renewable, one-year period upon the food provider showing, in writing, that this ordinance would create an undue hardship or practical difficulty not generally applicable to other persons in similar circumstances. The Director shall prepare a written decision to grant or deny a one-year exemption, which decision shall be final.

(c) An exemption application shall include all information necessary for the Director to make a decision, including but not limited to documentation showing factual support for the claimed exemption. The applicant may be required to provide additional information.

(d) The Director may approve the exemption application in whole or in part, with or without conditions.

(e) Foods prepared or packaged outside the City of Monterey and sold inside the City are exempt from the provisions of this ordinance except for those foods prepared or packaged in connection with a special event held within the City. Other purveyors of food prepared or packaged outside the City are encouraged to follow the provisions of this ordinance as it is a policy goal of this City to eliminate the use of polystyrene foam for packaging unprepared food.

Sec. 14-19. Enforcement And Notice Of Violation.

(a) The remedies provided by this ordinance are cumulative and in addition to any other remedies available at law or in equity.

(b) Violations of this ordinance shall be prosecuted as misdemeanors, punishable as set forth in section 1-7 of this code. In addition, each and every such violation shall be subject to the administrative citation process set forth in Article 2, Chapter 1, of this code.

(c) In addition to the remedies set forth above, the City Attorney may seek legal, injunctive, or any other relief to enforce the provisions of this ordinance.

(d) The Director shall be responsible for enforcing this ordinance and shall have authority to issue citations for violations.

(e) The Director, in accordance with applicable law, may inspect any vendor or food provider's premises to verify compliance.

(f) Food vendors shall state that they are in compliance with this ordinance on their annual business license renewal forms.

Sec. 14-20. Penalties And Fines For Violations.

Violations of this ordinance shall be enforced as follows:

(a) For the first violation, a written warning shall be issued to the food provider specifying that a violation of this ordinance has occurred, and which further notifies the food provider of the appropriate penalties to be assessed in the event of future violations. The food provider will have 30 days to comply.

(b) Upon failure of the food provider to comply within the 30-day period set forth in subsection (a) above, the City may pursue enforcement of this ordinance utilizing any of the remedies set forth in Section 14-19 above.

(c) If issuance of an administrative citation is deemed to be the appropriate enforcement method, such citation shall issue following the failure of the food provider to comply within the 30 day notice period set forth in subsection (a) above. The fine amount shall be set forth in the City's Administrative Fine Resolution. In lieu of said fine, the City may allow the violator to submit receipts demonstrating the purchase of at least $100 worth of biodegradable, compostable, or recyclable products after the citation date, as an alternative disposable food service ware for the items which led to the violation.

(d) Following the issuance of a first administrative citation, second and subsequent violations of this ordinance shall result in the issuance of additional administrative citations. The fine amounts of these subsequent violations shall be set as forth in the City's Administrative Fine Resolution.

(e) Food providers who violate this ordinance in connection with special events, as defined in this Article, shall be assessed a graduated administrative fine which shall increase in amount depending upon the number of persons attending said special event. The amount of the graduated administrative fine shall be established and set forth in the City's Administrative Fine Resolution."

SECTION 3: All ordinances and parts of ordinances in conflict herewith are

hereby repealed.

SECTION 4: This ordinance shall take effect six months from and after its final passage and adoption, in order to allow vendors to use up any remaining stock of prohibited product. This ordinance shall become mandatory on the first day of the month following this six-month voluntary period

PASSED AND ADOPTED BY THE COUNCIL OF THE CITY OF MONTEREY this _____ day of _____, 2008, by the following vote:

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

APPROVED:

_____

Mayor of said City

ATTEST:

_____

City Clerk thereof