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Chief Executive Officer

October 15, 2008

To: Supervisor Yvonne B. Burke, Chair
Supervisor Gloria Molina
Supervisor Zev Yaroslavsky
Supervisor Don Knabe
Supervisor Michael D. Antonovich

From: William T Fujioka
Chief Executive Officer

EXPANDED POLYSTYRENE FOOD CONTAINERS – STATUS REPORT

On May 22, 2007, your Board approved a number of actions related to the use of expanded polystyrene (EPS) food containers. This status report provides a summary of departmental efforts to date.

1. **Board Action**

The Director of Public Works, in consultation with the Director of Internal Services and County Counsel, was instructed 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 to the Board with a recommendation on the earliest practical effective date for such prohibition; a recommendation on whether there should be a case-by-case waiver as a result of contractual obligations or if there are no other viable alternatives for specific products; and a description of the proposed outreach program to provide information and assistance in identifying environmentally friendly alternatives to expanded polystyrene food containers.

Status

In order to evaluate the viability of phasing out EPS, the Department of Public Works (DPW) completed a report entitled "An Overview of Expanded Polystyrene Food Containers in Los Angeles County: Part 1 - Banning Expanded Polystyrene Food Containers at County Operations" (attached). The Report, which included researching

and evaluating the environmental impacts of EPS food containers, alternatives to EPS, phasing out EPS at County operations, and case studies from other jurisdictions, made the following findings:

- Replacing EPS products with reusable and durable goods, where applicable, would have the highest positive impact on the environment.

- Prohibiting the purchase and use of EPS food containers at County operations would be feasible for the majority of departments since EPS use is moderate and several departments already use alternative products.

- Alternative products may be significantly more expensive than EPS to purchase depending on the material used, manufacturing process, and durability of the product. This may be especially critical for departments in which health, safety, and/or security is an operational issue since viable alternative products are much more limited.

As part of this analysis, DPW worked extensively with County departments, which included presentations, discussions, and questionnaires regarding consumption and usage of EPS food containers, including cafeterias and food service providers. Five departments indicated significant use of EPS food containers. The Department of Health Services (DHS) and the Sheriff's Department reported that they utilize millions of EPS food containers each year; and the three other departments, Parks and Recreation, Community and Senior Services, and Fire, use between 10,000 and 100,000 EPS food containers each year.

Additionally, in order to evaluate potential cost impacts, the Internal Services Department (ISD) solicited bids for alternative compostable, biodegradable single-use food containers for the Sheriff's Department. The resulting lowest bid was approximately three times the current cost for utilizing EPS food containers. This bid process demonstrated that additional analysis was needed to ensure that departments would have proper guidance relative to identifying product specifications and determining cost-effective selections, in determining possible alternative products to EPS.

Therefore, based on the response to the questionnaire and as a result of the bid process conducted by ISD, it was determined that a consultant should be retained to further evaluate EPS food container usage by County departments and develop specific environmentally preferred alternatives to supplement the findings of the DPW report. The consultant would identify specific alternative products to EPS based on the following hierarchy of alternative products:

1. Reusable and durable goods

2. Biodegradable single-use products, including paper-based single-use products with no petroleum coating

3. Recyclable single-use products

4. Other non-EPS products

5. EPS products, for those cases where a waiver is approved

This hierarchy provides flexibility for departments in implementing solutions to meet their specific operational and budgetary requirements.

The consultant study is expected to be completed by May 2009. Therefore, in order to allow sufficient time for departments to procure alternative products and amend existing contracts, we are planning to come back to your Board with a recommended effective date of August 1, 2009 for the phase out of EPS food containers. In addition, ISD will update the existing Countywide Purchasing Policy to include an EPS food and beverage container component with specific emphasis for procurement of alternative products, based on the recommendations of DPW's study.

Our expectation is that this approach will minimize the need for temporary waivers. However, a waiver may be granted if:

- 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

- County facilities or contracted operations contain and collect all EPS food containers generated on-site for the purpose of recycling.

The County Energy and Environmental Team, in conjunction with the Chief Executive Office, will submit semi-annual 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.

Remaining Action Items

- Internal Services Department to revise Countywide Purchasing Policy to incorporate the alternative product hierarchy by October 31, 2008.

- Internal Services Department to retain the consultant by November 14, 2008 to initiate the study of product alternatives and establish purchasing guidelines.

- The Energy and Environment Team to develop EPS outreach program and provide information to departments by March 31, 2009.

2. **Board Action**

The Director of Public Works, in consultation with County Counsel, was instructed to investigate and report back 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.

Status

Upon implementation of the County program in August 2009, an evaluation will be made to determine the feasibility of further expanding the EPS restriction to food service establishments and retail stores in the unincorporated County areas. The evaluation will include public outreach and coordination with the Working Group, including affected industry representatives and County Counsel prior to recommending any changes to the County Code.

Remaining Action Items

- Department of Public Works to evaluate the impact of the restriction on County departments; conduct a public outreach effort; and develop Board recommendations regarding feasibility of expanding the restriction to the unincorporated County areas.

- Working Group to solicit input from key stakeholders and affected food service establishments and retail stores regarding the feasibility of implementing an unincorporated County area program.

- Working Group to complete evaluation by January 31, 2010, taking into account the consultant's findings on environmentally friendly alternatives to EPS and a life cycle analysis examining the comparative environmental impacts of EPS and alternative products.

- Working Group to report recommendations to the Board, including changes to the County Code as required, by Spring 2010.

3. **Board Action**

The County's Legislative Advocates in Sacramento were instructed to pursue passage of AB 820 (Karnette), which sought to ban the selling, possession, or distribution of expanded polystyrene food containers at State facilities, including universities and colleges.

Status

The County Chief Executive Office legislative advocates pursued a "support" position of AB 820; however, the Bill did not successfully pass out of the Assembly Appropriations Committee.

Remaining Action Item

The Chief Executive Office and Department of Public Works will continue to monitor legislation related to EPS.

4. **Board Action**

The Chief Executive Office was instructed to update the County's policies and proposals for the 2007-08 State Legislative Session to pursue legislation which promotes market development and manufacture stewardship of products made of alternatives to polystyrene.

Status

The Chief Executive Office updated the Board's policies and proposals and pursued legislation in support of AB 820 and AB 904; however, ultimately these Bills did not pass out of the Assembly and Senate Appropriations Committees, respectively.

Remaining Action Item

The Chief Executive Office and Department of Public Works will continue to monitor legislation introduced in future years related to EPS.

5. **Board Action**

The Director of Public Works is instructed to enhance the educational and public outreach campaigns to encourage County residents, public agencies, school districts and cities on environmentally-friendly alternatives to polystyrene.

Status

The Department of Public Works has modified its education and outreach campaigns to County residents, public agencies, school districts, and cities to encourage the use of environmentally friendly alternatives to EPS.

Remaining Action Item

The Working Group will continue to explore opportunities to enhance public education and outreach on alternatives to EPS in coordination with its other related activities.

If you have any questions regarding this memorandum, please contact me, or your staff may contact Burt Kumagawa of this Office at (213) 893-9742, or via e-mail at bkumagawa@ceo.lacounty.gov.

WTF:LS
DSP:BK:ib

Attachment

c: Executive Officer, Board of Supervisors
County Counsel
All Department Heads
Sanitation Districts of Los Angeles County

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"

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Internal Services Department
Department of Public Health
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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.

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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

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[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

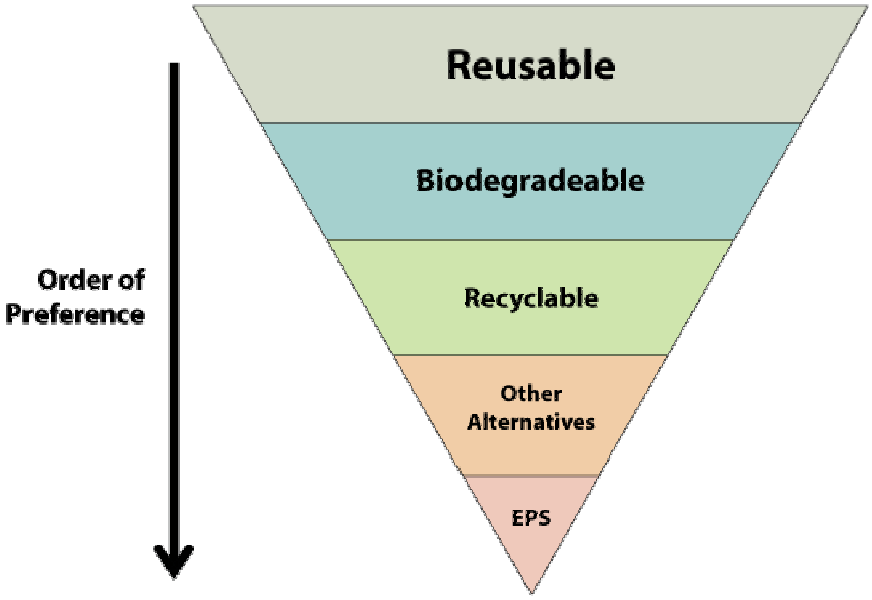

Figure 2 – Hierarchy of Preferred Alternatives for Procurement

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.

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[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

[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.

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.

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

Item	Statistic
Annual Rate of Recycling	
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**	

[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
Consumer Affairs	**Minimal**	Used for special events only
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**	

County Department	Use EPS?	Quantity of Use/Comments
Sheriff	**Yes**	65,000 24oz. cups; 4 million 8oz. cups; 100,000 food containers; and 500,000 trays per year
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.

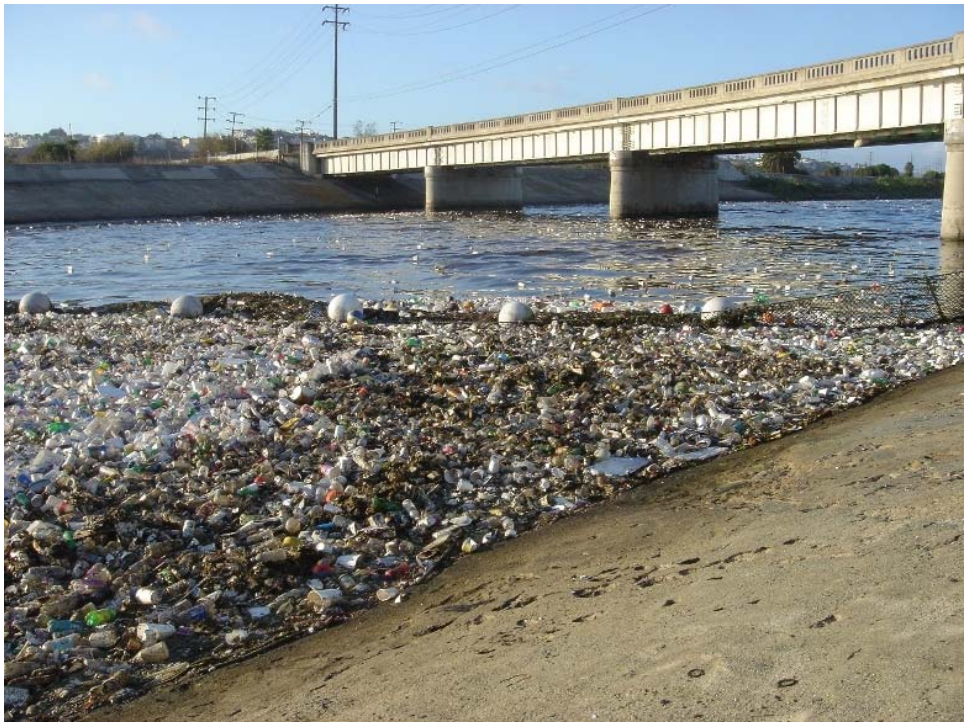

Figure 8 – EPS caught in the In-Stream Floating Net

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]

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[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^{o} 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^{o} 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

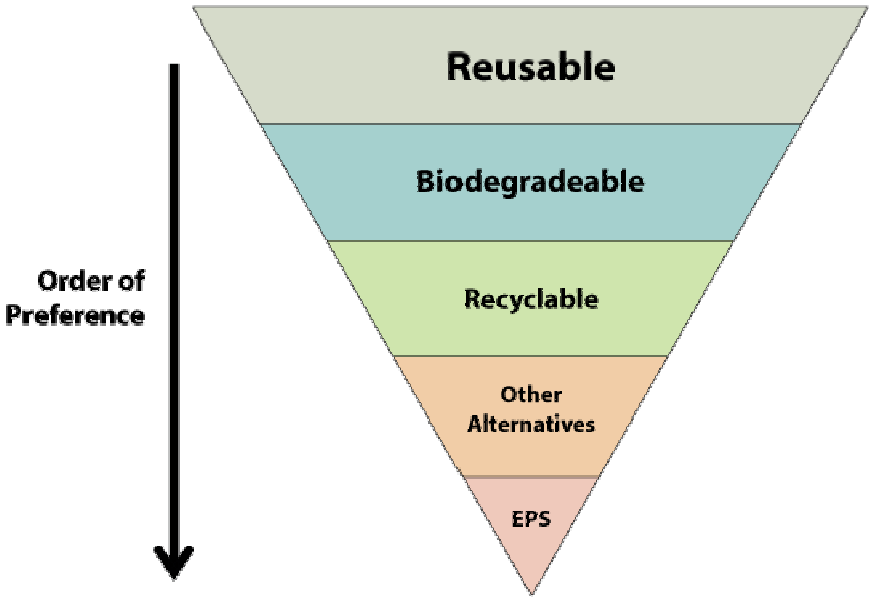


Figure 2 – Hierarchy of Preferred Alternatives for Procurement

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 ~~E~~educated on environmentally-friendly alternatives to EPS food containers	Should procure and utilize alternative~~s products~~ to EPS products directly*	Procuring products ~~directly~~ from contracted vendors or through ISD**
Organizers of County-sponsored events	√	√	
Permitee of County permitted events	√	√	
County-~~M~~managed concessions	√		√
County employees	√	√	
Employee ~~C~~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

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
Costco	N/A	(415) 626-4388	www.costco.com	Containers, Bowls, Cups, Plates	Paper Fiber, PLA	
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

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
Maple Trade Corp	122 Starlite Street, South San Francisco, CA 94080	(650) 296-8998	www.mapletradecorp.com	Containers, Bowls, Cups, Plates	Plastic #5	No
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

Distributor	Address	Contact Information	Website	Type of Products	Type of Material	Agreement Vendor?
Simply Biodegradable	N/A	(509) 910-1430	www.simplybiodegradable.com	Containers	Bagasse, PLA, Corn,	No
Smart and Final	22631 Ventura Blvd, Woodland Hills CA	(818) 225-9590	www.smartandfinal.com	Containers, Bowls, Cups, Plates		No
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

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	N/A	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	N/A	N/A	N/A	N/A	N/A
Children and Family Services	NO	NO	NO	NO	NO
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	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A
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~~s~~	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

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
A Sustainable Community
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®

City of Santa Monica
A Sustainable Community
www.smepd.org

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
Espanol : (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

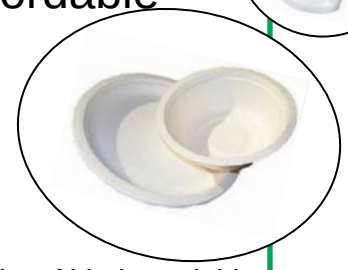
STARTS JANUARY 1, 2007
Oakland Municipal Code Section 8.07

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 thm chi tiết bằng tiếng Việt ỗ để nhận ẋt gĩp î, 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

CITY OF OAKLAND

DISTRIBUTOR LIST

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

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

SF Environment

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.

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.

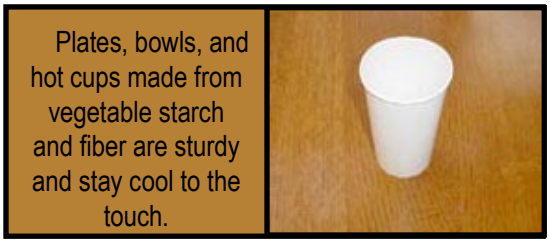
Continued on page 2

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.


Plates, bowls, and hot cups made from vegetable starch and fiber are sturdy and stay cool to the touch.

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."