



Date: April 22, 2008
To: Honorable Mayor and City Council
From: Councilmember Tonia Reyes Uranga, Chair, Environmental Committee
Commissioner Andrew Kincaid, Chair, Sustainable City Commission
Subject: **POLYSTYRENE USE AND RELATED ISSUES**

The Environmental Committee, at its meeting held November 28, 2007 and the Sustainable City Commission, at its meeting held March 27, 2008, considered communications relative to the above subject.

It is the recommendation of the Environmental Committee and the Sustainable City Commission to the City Council that the communications be received and approved.

Respectfully submitted,

ENVIRONMENTAL COMMITTEE

Councilmember Tonia Reyes Uranga, Chair

SUSTAINABLE CITY COMMISSION

Commissioner Andrew Kincaid, Chair

Prepared by:
Gloria Harper



CITY OF LONG BEACH

LONG BEACH DEVELOPMENT SERVICES

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April 22, 2008

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Approve Environmental Committee recommendations regarding expanded polystyrene. (Citywide)

DISCUSSION

On June 5, 2007, the City Council referred a discussion of the use of plastic bags and expanded polystyrene, in the form of take-out food containers, to the Environmental Committee with the purpose of returning to Council with a recommended policy action.

To facilitate further discussion, the Environmental Committee met on October 25, 2007, and hosted a community forum entitled, "For Here Or To Go: A Discussion About How Waste Impacts a Livable City."

Overall, what was heard during the panel discussion was that both plastic bags and expanded polystyrene can have negative environmental impacts if not handled properly. The reported impacts include litter, danger to wildlife and marine habitat, and adverse toxic effects on both humans and animals.

Following the panel discussion, a majority of the speakers made comments as to the severity of the plastic problem and urged the City of Long Beach to take the necessary steps to mitigate the environmental impacts and litter resulting from the use of these products.

Based on the findings presented at the Environmental Committee on November 28, 2007, the Committee made the following recommendations:

1. Ban the use of expanded polystyrene in City facilities (Attachment A provides recommendations on program implementation).
2. Explore options for eliminating the use of expanded polystyrene citywide, including:
 - a. Encourage voluntary elimination of expanded polystyrene through a citywide educational campaign for food service facilities

- b. Explore the development of a green business designation to reward businesses that eliminate the use of expanded polystyrene
- c. Consider an expanded polystyrene recycling program and engage in other green practices/Investigate creating a market to recycle expanded polystyrene locally
- d. Request that staff explore how to address the human behavior modification component to encourage the proper disposal of expanded polystyrene and discourage its use
- e. Explore infrastructure changes to encourage the proper disposal of expanded polystyrene and reduce litter

This matter was reviewed by Deputy City Attorney Amy Burton on January 10, 2008 and Budget Management Officer Victoria Bell on February 4, 2008.

A presentation was made to the Sustainable City Commission (Commission) on March 27, 2008 regarding expanded polystyrene. The Commission supported the recommendation provided above.

TIMING CONSIDERATIONS

This item is not time sensitive.

FISCAL IMPACT

A City facility ban on expanded polystyrene would have varying costs. The overall fiscal impact would likely be negligible since there are only a few departments that use expanded polystyrene. Most departments have voluntarily eliminated the use of expanded polystyrene. The departments that do purchase break room supplies have opted for paper cups and plates. Individual departments would cover the cost of the products they purchase.

Some of the alternatives to expanded polystyrene plates include: paper, recyclable plastic, and biodegradable/compostable plant-based polymer products. The average per unit price for paper plates is \$0.03. The average per unit price for recyclable plastic plates is \$0.15, and the average per unit price for biodegradable/compostable plant-based polymers \$0.13. The average per unit price for an expanded polystyrene plate is \$0.05.

Some of the alternatives to expanded polystyrene cups include: paper, recyclable plastic, and biodegradable/compostable plant-based polymer products. The average per unit prices for paper, plastic, and biodegradable alternatives are \$0.06, \$0.06, and \$0.10, respectively. The average per unit price for an expanded polystyrene cup is \$0.05.

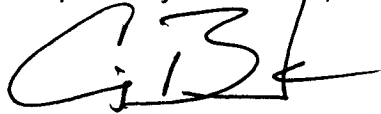
Some alternatives to expanded polystyrene bowls include paper, recyclable plastic, and biodegradable/compostable plant-based polymer products. The average per unit prices

for paper, plastic, and biodegradable alternatives are \$0.10, \$0.10, and \$0.08, respectively. The average per unit price for an expanded polystyrene bowl is \$0.04.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



CRAIG BECK
DIRECTOR OF DEVELOPMENT SERVICES

CB:GC

Attachments: Attachment A – Expanded Polystyrene Ban Discussion
Attachment B – Food Service Containers Cost Comparison

APPROVED:



PATRICK H. WEST
CITY MANAGER

Attachment A

The City's existing Environmentally Preferable Procurement Policy encourages the use of services and products that reduce toxicity, conserve natural resources, materials, and energy, and maximize recyclability and recycled content. However, the policy is silent on expanded polystyrene products; hence, the implementation of a city ban on polystyrene would enhance existing environmental policies while demonstrating Long Beach City Council's leadership and commitment to becoming a more sustainable city.

Currently, several individual departments have voluntarily eliminated the use of expanded polystyrene. Those departments that purchase break room supplies opt for paper, while reporting that if any expanded polystyrene is used, employees are bringing it in for personal use.

An example of a facility that is phasing out expanded polystyrene is the Long Beach Airport. The Airport is considering requiring the use of paper cups when its restaurant reopens. Another department is Parks, Recreation, and Marine, which does not purchase expanded polystyrene.

Another example of voluntary action is the operator of the City Hall cafeteria, who eliminated expanded polystyrene from operations. The cafeteria currently uses paper cups and cardboard sleeves for coffee. Rick Lopez, the owner/manager of the cafeteria, estimates that it costs approximately \$150 to \$200 more per month for the paper cups and sleeves as a replacement for polystyrene. To recover these costs, the price of a small cup of coffee increased by 10 cents, while the cost of a large cup of coffee increased by approximately 20 cents.

However, the cafeteria still uses expanded polystyrene soup bowls. Mr. Lopez has not been able to find an appropriate alternative to expanded polystyrene bowls, as his vendor does not carry any. He anticipates that if he were required to eliminate these bowls, he would have to discontinue the service of soup.

There may be some lessees of city property that use expanded polystyrene, which may be outside of the jurisdiction of a City facility ban. Staff recommends that an expanded polystyrene ban not require the use of a specific product, but rather require that any alternative product be easily handled through the City's existing recycling program. This will allow each department to select the product that is most useful and cost-effective for a particular application. Staff recommends that biodegradable products not be specifically required nor excluded in a resolution because although such products cannot currently be handled through the current recycling program, there is potential for them to break down through natural processes.

Cost estimates for switching to alternative products citywide would be minimal. In some cases, alternatives are slightly more expensive; however, in other cases, they are more economical. (See Attachment B) Therefore, the exact cost differential would depend on

which product a department chooses to use based on the individual needs and budget of the department. There are appropriate products available both through City vendors as well as local businesses like Office Depot, Staples, and Costco, where City employees could purchase alternatives to expanded polystyrene products for office events.

An expanded polystyrene ban could be implemented by including language in all city food service contracts as well as the City's Purchasing Policy to prohibit such use. Existing contracts would be updated to reflect the ban as a condition of contract renewal.

Ultimately, the implementation of a ban on expanded polystyrene would set the City of Long Beach apart as a leader in environmental policies, and demonstrate the Council's leadership and vision of building a more sustainable city.

Attachment B

Food Service Products Cost Comparison

Please Note: This data is for informational purposes only. Actual item price may vary by vendor.

	Material	Size	Quantity	Price	Price per Unit	
cups	EPS* (hot/cold)	12 oz	1000	\$22.21	\$0.02	
	EPS (hot/cold)	12 Oz	100	\$10.99	\$0.11	
	EPS (hot/cold)	10 oz	1000	\$39.99	\$0.04	
	EPS (hot/cold)	12 oz	1000	\$38.99	\$0.04	
	AVERAGE PER UNIT COST FOR EPS CUP					\$0.05
	paper (cold)	12 oz	300	\$10.28	\$0.03	
	paper (hot)	12 Oz	160	\$12.24	\$0.08	
	paper(hot/cold)	12 oz	1000	\$99.99	\$0.10	
	paper (with PLA** lining) (hot)	12 oz	1000	\$72.50	\$0.07	
	AVERAGE PER UNIT COST FOR PAPER CUP					\$0.06
	plastic (cold)	10 oz	300	\$7.77	\$0.03	
	plastic (cold)	16 oz	50	\$3.99	\$0.08	
	plastic (cold)	12 oz	50	\$3.49	\$0.07	
	AVERAGE PER UNIT COST FOR PLASTIC CUP					\$0.06
	corn (cold)	12 oz	50	\$6.49	\$0.13	
	corn (cold)	12 oz	1000	\$87.75	\$0.09	
	PLA (cold)	12 oz	1000	\$89.00	\$0.09	
	PLA-coated paper (hot)	12 oz	1000	\$95.35	\$0.10	
	bagasse*** (hot)	12 oz	1000	\$81.50	\$0.08	
	AVERAGE PER UNIT COST FOR PLA/BIOPLASTIC CUP					\$0.10
Plates	EPS	9"	125	\$5.99	\$0.05	
	EPS	9"	125	\$6.99	\$0.06	
	EPS	9"	200	\$9.21	\$0.05	
	AVERAGE PER UNIT COST FOR EPS PLATE					\$0.05
	paper	9"	1200	\$16.10	\$0.01	
	paper	9"	1000	\$29.99	\$0.03	
	paper	9"	120	\$6.99	\$0.06	
	AVERAGE PER UNIT COST FOR PAPER PLATE					\$0.03
	plastic	9"	50	\$10.99	\$0.22	
	plastic	9"	500	\$24.99	\$0.05	
	plastic	9"	125	\$23.78	\$0.19	
	AVERAGE PER UNIT COST FOR PLASTIC PLATE					\$0.15
	biodegradable	10"	125	\$15.99	\$0.13	
	biodegradable paper	9 3/8"	125	\$19.75	\$0.16	
	biodegradable recycled paper	9"	40	\$5.00	\$0.13	
	bagasse	8 3/4"	50	\$6.00	\$0.12	
	compostable/recyclable paper	9"	125	\$19.99	\$0.16	
bagasse	9"	1000	\$87.00	\$0.09		
AVERAGE PER UNIT COST FOR PLA PLATE					\$0.13	

Bowls	EPS	12 oz	125	\$5.99	\$0.05	
	EPS	12 oz	125	\$3.79	\$0.03	
	EPS	12 oz	300	\$8.88	\$0.03	
	AVERAGE PER UNIT COST FOR EPS BOWL				\$0.04	
	plastic	12 oz	125	\$18.15	\$0.15	
	plastic	12 oz	1000	\$51.65	\$0.05	
	plastic	12 oz	125	\$14.18	\$0.11	
	AVERAGE PER UNIT COST FOR PLASTIC BOWL				\$0.10	
	paper	12 oz	125	\$16.99	\$0.14	
	paper	12 oz	1000	\$106.45	\$0.11	
	paper	12 oz	175	\$7.55	\$0.04	
	AVERAGE PER UNIT COST FOR PAPER BOWL				\$0.10	
	biodegradable	12 oz	1200	\$56.49	\$0.05	
	compostable/recyclable	12 oz	150	\$19.99	\$0.13	
bagasse	11.5 oz	1000	\$55.00	\$0.06		
AVERAGE PER UNIT COST FOR PLA BOWL				\$0.08		
take-out containers	EPS clamshell container	9"	100	\$10.42	\$0.10	
	EPS clamshell container	6"	125	\$7.10	\$0.06	
	EPS clamshell container	10"	200	\$22.99	\$0.11	
	AVERAGE PER UNIT COST FOR EPS TAKE-OUT CONTAINER				\$0.09	
	paper box with folded lid	32 oz	300	\$74.75	\$0.25	
	paper box with folded lid	48 oz	200	\$63.25	\$0.32	
	paper box with folded lid	66 oz	200	\$72.75	\$0.36	
	paper box with folded lid	96 oz	160	\$66.50	\$0.42	
	paper box with folded lid	120 oz	120	\$66.65	\$0.56	
	AVERAGE PER UNIT COST FOR PAPER TAKE-OUT CONTAINER				\$0.38	
	plastic clamshell	5"x5"	500	\$75.95	\$0.15	
	plastic clamshell	5"5"	500	\$100.75	\$0.20	
	plastic clamshell	5"x5"	125	\$11.99	\$0.10	
	AVERAGE PER UNIT COST FOR PLASTIC TAKE-OUT CONTAINER				\$0.15	
	clamshell (pla, corn)	8 in	160	\$58.35	\$0.36	
	clamshell (pla, sugarcane)	8x8	200	\$42.30	\$0.21	
	clamshell (pla, clear)	8x8x3	250	\$83.50	\$0.33	
	clamshell, (bagasse)	9x9x3	300	\$74.50	\$0.25	
	AVERAGE PER UNIT COST FOR PLA TAKE-OUT CONTAINER				\$0.29	

*EPS: Expanded Polystrene

**PLA (polylactide) is a corn starch-based biodegradable polymer.

***Bagasse is a sugar cane-based paper-like fiber.