

Takoma Park Polystyrene Ban: Alternative Material Cost Analyses

Polystyrene Ban Basics

Beginning on July 1, 2015, the City of Takoma Park will prohibit the use of polystyrene-composed packaging and food-service ware by food service facilities when providing prepared foods for on-site or take-away consumption.

Affected entities include:

- Any restaurant, coffee shop, bakery, retail market, cafeteria, take-out counter, commercial kitchen, grocery store, convenience store, and catering operation;
- Food trucks or stands, sidewalk or festival vendors or temporary stands;
- Any food-service facility in an institution, hospital, club, school, church, park or public building, meeting or convention facility, or camp.

Additional information about polystyrene and the City-wide ban can be found on the Public Works Department website under "Polystyrene Ban".

Takoma Park Public Works Department Cost Analyses Summary

In June, 2015, the Public Works Department conducted research on the availability of vendors and manufacturers to supply alternative material products and to estimate the anticipated cost implications to comply with the ban on polystyrene. Below are highlights from their findings:

- **Available!** Alternative materials, such as compostable plastic and plant fiber, are readily available from a wide range of food-service ware suppliers. See page 2 for a list of 16 possible vendors.
- **Economical!** The total unit cost increase when purchasing four alternative material items as opposed to polystyrene from one supplier was only \$.04.
- **Cost-effective!** One of the most widely used containers, a 9" one-compartment clamshell, was available at a cheaper cost produced from plant fiber than one composed of polystyrene foam.
- **Budget-friendly!** Switching from polystyrene to the cheapest alternative material product resulted in an average increase of \$2.04 per 100 units purchased, across seven different food-service ware products.

Other Cost Analyses

- Using data provided by the Montgomery Department of Economic Development, the County estimated that there would be a \$.10 increase in cost per unit due to switching from polystyrene to an alternative product. The County's polystyrene ban enters into effect in January, 2016 ([Bill 41-14 Economic Impact Statement, p.107](#)).
- In its review of the Executive's Economic Impact Statement, the County's Office of Legislative Oversight found that this cost difference could decrease as demand for non-polystyrene increases and that creating purchasing cooperatives was a viable way to reduce the potential costs for businesses ([OLO Fiscal Impact Statement Review, p. 112](#)).

Vendor List

Vendor	Phone	Website	Description	Material(s)	Boxes	Bowls	Cold Cups & Lids	Cutlery	Clamshell and Lidded Containers	Hot Cups and Lids	Plates	Straws	Trays and Cup Holders
Acme Paper and Supply Company	410-792-2333	www.acmepaper.com	Compostable and recyclable food service product supplier for the Mid-Atlantic region.	Multiple	X	X	X	X	X	X	X	X	X
Aspenware	250-545-4470	http://aspenware.ca	Compostable, single-use wooden cutlery.	Wood				X					
Be Green Packaging	805-456-6088	http://begreenpackagingstore.com	National supplier of compostable food service packaging products.	Plant Fiber, PET		X			X		X		X
BioMass Packaging	1-800-317-2737	www.biomasspackaging.com	National supplier of compostable food service packaging products.	Plant Fiber, PLA	X	X	X	X	X	X	X		X
Buy Green	888-928-9473	www.buygreen.com	Online supplier of environmentally friendly products. Supply recyclable, biodegradable, and/or compostable food service wares.	PLA, Plant Fiber, Wood, Recycled Paper		X	X	X	X	X	X		X
Costco	301-692-1330	www.costco.com	National, member-only warehouse supplier of food service products. Compostable and recyclable products available.	Paper, Plant Fiber		X	X	X		X	X		

*Prices recorded in June, 2015

**Most locations offer additional products and may offer discounts for bulk purchasing

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Eco-Products	303-449-1876	www.ecoproducts.com	National sustainable and compostable disposable product producer and supplier.	Multiple	X	X	X	X	X	X	X	X	X
Food Service Warehouse	1-877-877-5655	www.foodservicewarehouse.com	National, online supplier of food service and disposable products.	Multiple	X	X	X	X	X	X	X	X	X
FPC Holdings Inc.	410-579-1000	http://fpc.synergycm.net/store-front.aspx	Food service packaging supplier for the Mid-Atlantic region. Supply compostable, paper, and plastic products.	Plastic, Paper, Plant Fiber		X	X	X	X	X	X	X	X
Good Start Packaging	866-971-9251	www.goodstartpackaging.com	Compostable, recyclable, and wooden disposable food service product supplier.	Plant Fiber, PLA, Recycled Paper	X	X	X	X	X	X	X		X
Pactiv	847-482-2000	www.pactiv.com	International food service packaging company. Supply and manufacture paper, plastic, and some compostable products.	Multiple			X	X	X		X	X	X
Sysco	410-799-7000	www.sysco.com/about-sysco/sysco-baltimore.html	International food service and packaging supplier for restaurants and businesses.	PLA, Plant Starch Materials, Plant Fiber		X	X	X	X	X	X		X

*Note that these vendors may carry polystyrene products in addition to alternative products. Please review the information at www.takomaparkmd.gov/polystyrene-ban

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Restaurant Depot	301-499-1770	www.restaurantdepot.com	National supplier of food service wares with physical locations throughout the Mid-Atlantic.	Plastics, Plant Fiber				X	X				
The Webstaurant Store	717-392-7472	www.webstaurantstore.com/	National, online supplier of food service and disposable products. Supply plastic, paper, and compostable products.	PP, Plant Fiber, Wood		X			X		X		X
Vegware	330-369-1192	www.vegwareus.com/	International supplier of compostable, disposable food packaging products.	Plant Fiber, PLA, Recycled Paper	X	X	X	X	X	X	X		X
World Centric	707-241-9190	http://worldcentric.org	National manufacturer of compostable food service disposable products.	Plant Fiber, PLA, Recycled Paper	X	X	X	X	X	X	X	X	X

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Cost Comparison of Products Available at Costco

Costco

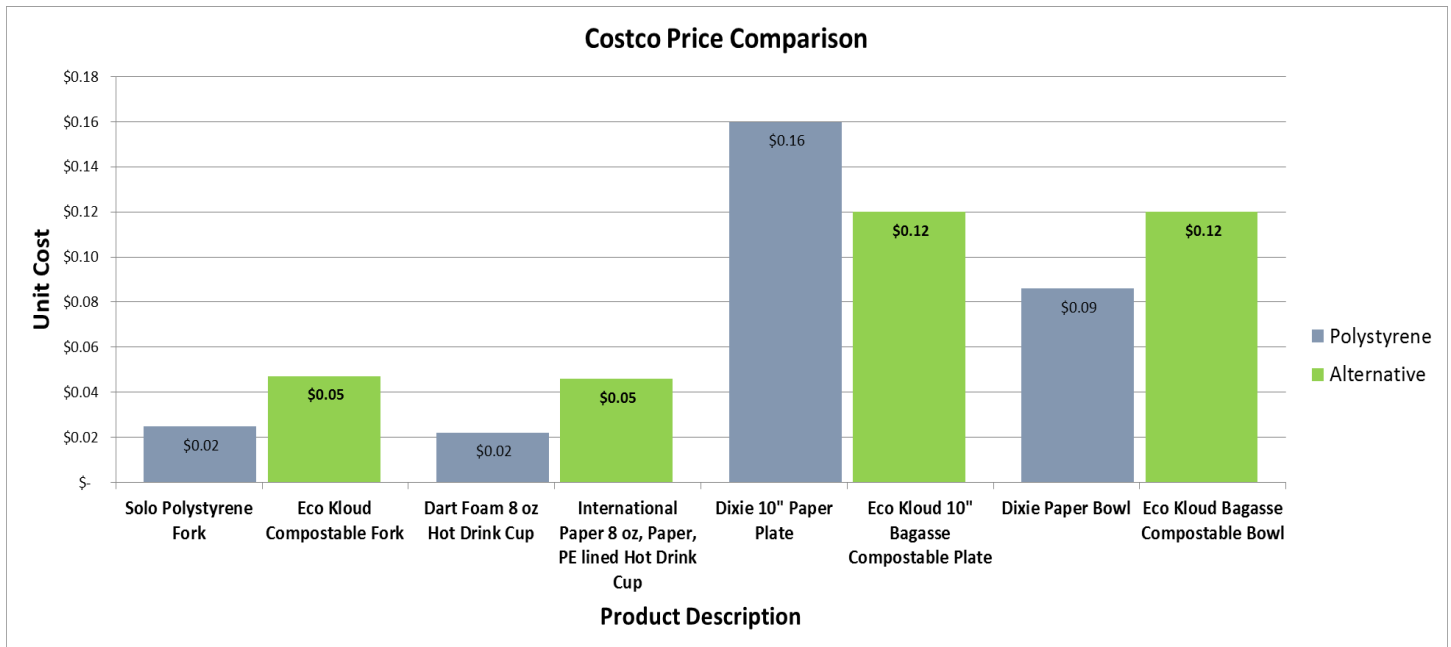
Product	Price	Units	Unit Price
Solo Polystyrene Fork	\$ 12.39	500	\$0.02
Eco Kloud Compostable Fork	\$ 46.99	1000	\$0.05
Unit Difference			\$0.02
Cost change over 100 units			\$2.22

Dart Foam 8 oz Hot Drink Cup	\$ 21.99	1000	\$0.02
International Paper 8 oz, Paper, PE lined Hot Drink Cup	\$ 27.49	600	\$0.05
Unit Difference			\$0.02
Cost change over 100 cups			\$2.38

Dixie 10" Paper Plate	\$ 79.99	500	\$0.16
Eco Kloud 10" Bagasse Compostable Plate	\$ 59.99	500	\$0.12
Unit Difference			-\$0.04
Cost change over 100 plates			-\$4.00

Dixie Paper Bowl	\$ 42.99	500	\$0.09
Eco Kloud Bagasse Compostable Bowl	\$ 59.99	500	\$0.12
Unit Difference			\$0.03
Cost change over 100 bowls			\$3.40

Average Unit Price Change			\$0.01
Average Price Change over 100 Units			\$1.00

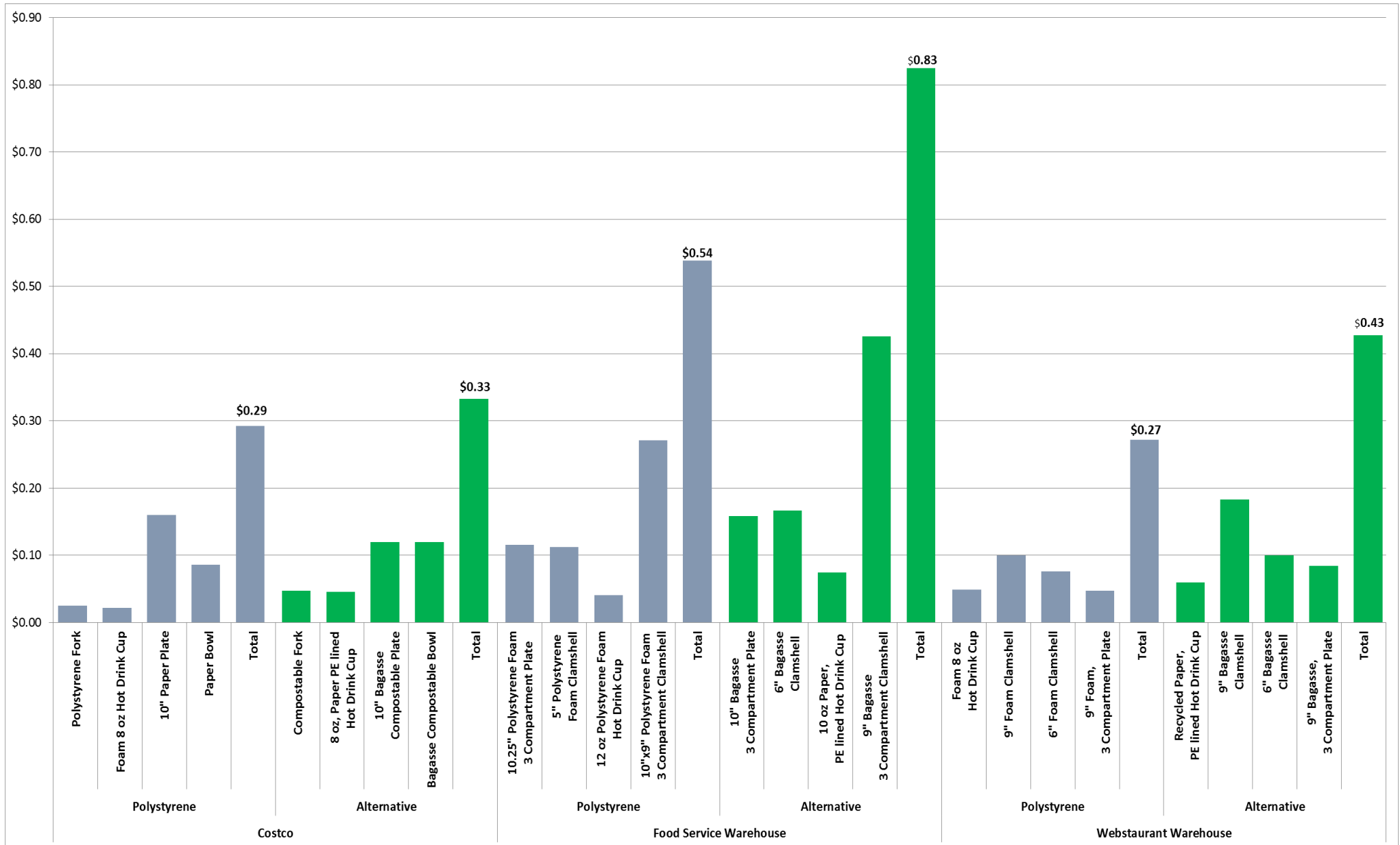


*Prices recorded in June, 2015

**Most locations offer additional products and may offer discounts for bulk purchasing

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Unit Cost Comparison of Polystyrene versus Alternatives between 3 Suppliers



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Cost Comparison Between Polystyrene and Alternative Materials

9", 1 Compartment Clamshells		
Material	Unit Price	per 100
Bagasse	\$0.15	\$15.00
Plant Fiber	\$0.30	\$29.83
PLA	\$0.27	\$27.50
Polystyrene Foam	\$0.18	\$17.75
Minimum Cost Change	-\$0.03	-\$2.75

Small, Hinged, Square Take-Out Container		
Material	Unit Price	per 100
Bagasse, 6"	\$0.15	\$14.81
PLA, Clear, 6"	\$0.15	\$15.50
Plant Fiber, 6"	\$0.14	\$14.25
Polystyrene Foam, 6"	\$0.11	\$11.20
Minimum Cost Change	\$0.03	\$3.05

16 oz Round Take Out Container		
Material	Unit Price	per 100
Plant Fiber	\$0.11	\$10.89
PLA	\$0.13	\$13.34
Polystyrene Foam	\$0.06	\$6.10
Minimum Cost Change	\$0.05	\$4.79

10" Plate		
Description	Unit Price	per 100
Bagasse, 1 Compartment	\$0.12	\$12.00
Plant Fiber, 3 Compartment	\$0.14	\$14.17
Paper, 1 Compartment	\$0.16	\$16.00
Polystyrene Foam, 1 Compartment	\$0.07	\$7.50
Minimum Cost Change	\$0.05	\$4.50

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Cost Comparison Between Polystyrene and Alternative Materials

12 oz Hot Cup		
Material	Unit Price	per 100
Paper, PLA Compostable Lining	\$0.09	\$9.00
Paper, Insulated	\$0.10	\$10.40
Paper, PLA Compostable, Double Lined	\$0.15	\$15.43
Polystyrene Foam	\$0.07	\$6.80
Minimum Cost Change	\$0.02	\$2.20

Cutlery		
Material	Unit Price	per 100
PLA	\$0.05	\$4.70
Plant Starch, Not Compostable	\$0.05	\$5.10
Plant Starch, Compostable	\$0.06	\$5.93
Wood	\$0.04	\$3.97
Polystyrene	\$0.02	\$2.48
Minimum Cost Change	\$0.01	\$1.49

Sample Take-Out Business Daily Product Need		
Product	Unit Price	per 100
Fork, Knife, and Spoon	\$0.12	\$11.91
Small Hinged Take-Out Container	\$0.14	\$14.25
9" Hinged Clamshell	\$0.15	\$15.00
Round Take-Out Container	\$0.11	\$10.89
12 oz. Hot/Cold Cup	\$0.09	\$9.00
Total	\$0.61	\$61.04

Total Cost Change When Purchasing All Seven Products		
Material	Unit Price	per 100
Lowest Cost Alternative	\$0.76	\$76.25
Polystyrene Product	\$0.61	\$61.41

Average Cost Change Over the Seven Products	
Unit Cost	\$0.02
100 Units	\$2.04

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