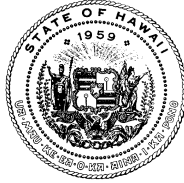


**LATE**

DAVID Y. IGE  
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, MD.  
DIRECTOR OF HEALTH

**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
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WRITTEN TESTIMONY  
ONLY

**Testimony COMMENTING on HB 1545**  
**RELATING TO ENVIRONMENTAL PROTECTION**

REPRESENTATIVE CHRIS LEE, CHAIR  
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Hearing Date: February 9, 2017 Room Number: 325

Time: 8:30 A.M.

1 **Fiscal Implications:** We support the intent of this initiative as long as it does not replace our  
2 priorities requested in the Executive Budget.

3 **Department Testimony:** The department supports the intent of this measure in combating the  
4 global problem of plastic marine debris and to reduce litter which spoils the natural beauty of the  
5 islands, however we do not believe we are the proper agency to monitor the purchase and use of  
6 polystyrene containers for serving food or beverages in state-owned or state-run buildings. The  
7 department may be able to monitor and prevent the purchase of polystyrene containers by its own  
8 programs but we are not capable of monitoring and preventing the purchase and use of polystyrene  
9 products by other departments. However, we believe there other departments or programs within  
10 state government that are already in a better position to carry out the duties of this measure. We  
11 respectfully recommend that the bill be amended by assigning the measure to a more appropriate  
12 agency.

13 Thank you for the opportunity to testify.

**LATE**



**HB1545**  
**RELATING TO ENVIRONMENTAL PROTECTION**  
House Committee on Energy & Environmental Protection

February 9, 2017

8:30 a.m.

Room 325

The Office of Hawaiian Affairs (OHA) Beneficiary Advocacy and Empowerment Committee will recommend that the Board of Trustees **SUPPORT** HB1545, which would allow the State to take the lead in reducing the plastic waste stream that substantially impacts our culturally significant native wildlife, as well as the aesthetic quality of our economically and recreationally vital beaches and shoreline areas.

**Native seabirds and sea turtles are of great importance to Hawaiian culture.**

Many of these species hold particular spiritual and symbolic significance, and also play important roles in areas such as traditional navigation, meteorology, and craftwork. For example, foraging seabirds that travel back and forth from shore were traditionally used to navigate back to land from long voyages, and fishers past and present look for flocks of seabirds to find schools of feeding fish in the open ocean. Native Hawaiians also observed seabirds' patterns of behavior to anticipate weather changes. Various seabirds were further exemplified in traditional mo'olelo. The Hawaiian sea turtle or honu was likewise considered a sacred symbol to ancient Hawaiians, also figuring prominently in traditional mo'olelo, and often appearing in petroglyphs and kapa patterns. Sea turtle meat was traditionally reserved for ali'i, and all parts of the honu were traditionally used in various ways - their shells for tools, their flesh for food, and their skin for leather.

**Unfortunately, polystyrene and other nonbiodegradable, floating plastics pose a continuously growing threat to many of our culturally significant and threatened or endangered native seabird and sea turtle species.** For example, native seabirds and turtles are well known to often mistake Styrofoam and other floating plastics as food or nesting material. Numerous studies have found floating plastics in the stomachs of seabirds and sea turtles, with one study finding 97.5 percent of Laysan albatross chicks to have ingested plastic materials, and others indicating that half of all sea turtles are likely to have consumed plastics as well. Ingested plastics in such species can block digestive processes, cause internal organ damage and ulceration, and eventually lead to starvation and eventual death; long term exposure to styrene, which is found in Styrofoam, may also pose health hazards to both humans and animals.

**Notably, the prevalence of polystyrene in our waste stream can also impact our tourism industry, and a foundation of our local economy.** Our beaches and shoreline areas serve as major attractions to tourists visiting our islands. However, the accumulation

of nonbiodegradable floating plastics can significantly impact the aesthetic quality and attractiveness of such areas. Negative experiences with beaches degraded by plastics such as polystyrene may dissuade tourists from visiting again, and result in unfavorable travel reports to others considering a visit to our islands.

**By prohibiting disposable polystyrene containers in state buildings, this measure will allow the state to take one small step towards reducing the impacts of plastics on our culturally significant native wildlife and economically vital shoreline areas.** This measure would follow the lead taken in many other jurisdictions to phase out or ban polystyrene products, and demonstrate to local businesses the viability of making environmentally responsible choices in packaging. In addition, this bill may result in greater financial support for local vendors of compostable food and beverage containers, facilitating the further development of cheap and more widely available alternatives to polystyrene products.

Accordingly, OHA urges the Committee to **PASS** HB1545. Mahalo nui for the opportunity to testify on this measure.

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To: Rep. Chris Lee, Chair  
Rep. Nicole E. Lowen, Vice Chair  
Members of the House committee on Energy & Environmental Protection

From: Victor Lim, Hawaii Restaurant Association

Subj: HB1545 Prohibits the use of polystyrene food and beverage containers

Date: February 7, 2017

The Hawaii Restaurant Association representing about 3,500 restaurants with about 90,000 food service jobs here in Hawaii opposes HB1545 that will ban the use of polystyrene food and beverage containers in state facilities.

For more than 50 years, the US Food and Drug Administration have approved the use of polystyrene for food service products. Styrene, the material used in the manufacturing of polystyrene, is a naturally occurring substance found in common foods and beverages (notably beef, beer, and cinnamon).

Maui City Council had a task force led by council member Michael Victorino in 2014 and they found that polystyrene materials comprise actually less than one percent of the waste stream entering the land fill. Here in Honolulu, 100% of this waste ends up at H Power to be burned for fuel and doesn't enter any landfill.

Currently businesses have choices as to which type of containers to use with different costs and to go with the type of foods they sell. In Hawaii's highly diverse ethnic population with the many types of foods being offered, one will find that many of the ethnic dishes that are usually hot and also heavy with gravies, will usually use polystyrene containers to hold the product integrity and be able to safely transport the foods.

We are all very concerned about the beautiful Hawaii that we lived in and that's why in 2016, the Hawaii Restaurant Association along with many partners launched "Malama 808" to rally the industry and educate the public in making sure that trash are disposed in the right places. We are continuing with these efforts today.

Thank you for giving us the opportunity to share our point of view and please let us know if we can be of help.

Aloha.



February 7, 2017

To: The Honorable Chris Lee  
Members, House Committee on Energy & Environmental Protection

From: Tim Shestek, Senior Director  
State Affairs

**RE: HB 1545 - OPPOSE**

The American Chemistry Council (ACC) must respectfully oppose HB 1545, which seeks to ban the use of polystyrene foodservice containers in state-owned and state-run buildings and facilities. ACC and its members certainly support efforts to reduce litter and marine debris; however, HB 1545 appears to be drafted under the false assumption that alternatives to polystyrene food service containers are environmentally preferable.

All packaging leaves an environmental footprint regardless of the material type. It takes energy and raw materials to produce, transport, and recover or dispose of any material. So it is important to measure all of these impacts throughout the entire lifecycle of a product. Consider the following:

- Polystyrene cups weigh anywhere from two to five times less than comparable paper packaging products which means fewer air emissions when transporting products<sup>1</sup>.
- A polystyrene hot beverage cup requires about 50% LESS energy to produce than a similar plastic-coated paperboard cup with a corrugated cup sleeve, and creates significantly fewer greenhouse gas emissions than a similar coated paper-based cup with its corrugated sleeve.
- Studies conducted for Seattle Public Utilities (SPU) showed that banning polystyrene foam food take-out containers would dramatically increase environmental impacts by doubling the greenhouse gas emissions, energy use, and waste associated with the use of alternative products<sup>2</sup>.

The amount of polystyrene foam foodservice that makes up litter is very small – measured at 1.5 percent of the overall litter stream in detailed litter surveys conducted in the U.S. and Canada<sup>3</sup>. ACC certainly shares your concerns over the implications of litter; however, focusing on a single material type does not reduce litter. The City of San Francisco banned polystyrene containers, but according to a 2008 litter audit conducted for the city, paper cup litter increased after the ban was enacted<sup>4</sup>. Bans result in litter substitution, not elimination.

It is also important to note that “bio based” or “degradable containers” only “degrade” in a controlled composting environment – essentially a large industrial facility where temperatures can exceed 140 degrees for several days. Hawaii does not currently have a commercial composting facility to process compostable alternatives, so these products will end up in a landfill. Biodegradable containers do not degrade if littered alongside the road, deposited into a trash can, nor will they degrade if they make their way into a storm drain or other water body.

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<sup>1</sup> Life Cycle Inventory of Foam Polystyrene, Paper-Based, and PLA Foodservice Products, prepared by Franklin Associates, a Division of ERG, February, 2011

<sup>2</sup> Alternative to Disposable Shopping Bags and Food Service Items Volume I, prepared for Seattle Public Utilities, January 2008, Herrera Environmental Consultants

<sup>3</sup> The Contribution of Polystyrene Foam Food Service Products to Litter, Environmental Resources Planning, Gaithersburg, MD, May 2012

<sup>4</sup> The City of San Francisco Streets Litter Re-Audit 2008, Prepared for the City of San Francisco Environment Department, July 4, 2008



The Biodegradable Products Institute (BPI), a not-for-profit association of key individuals and groups from government, industry, and academia seeks to educate manufacturers, legislators and consumers about the importance of scientifically based standards for compostable materials which biodegrade in large composting facilities. Under their “Myths of Biodegradation”, BPI states:

**Myth:** Biodegradable products are the preferred environmental solution because waste simply biodegrades in the landfill.

**Reality:** Nothing biodegrades in a landfill because nothing is supposed to<sup>5</sup>.

Furthermore, replacements for polystyrene products will result in higher operating costs for restaurants, caterers, delis, and other food providers operating in state-run or state-owned buildings and facilities. Polystyrene containers cost 2-3 times less than replacement products, which in some cases do not perform well, especially for very hot and cold food and beverages.

For more than 50 years, the U.S. Food and Drug Administration has approved the use of polystyrene for foodservice products. Polystyrene foodservice products offer a sanitary way to serve fresh food and to help prevent the spread of disease.

Health experts and agencies (see included attachment) have all agreed and stated that styrene should not be confused with polystyrene, and levels of styrene in polystyrene foodservice products pose no risk to consumers. It’s important to understand the differences between styrene and polystyrene. Styrene, a liquid, and polystyrene, a solid, are fundamentally different. Styrene is a liquid that can be chemically linked to create polystyrene, which is a solid plastic that displays different properties. Polystyrene is an inert plastic that can be used to make many products, such as polystyrene foam used to make disposable plates, cups and other foodservice packaging.

ACC and its members take seriously the issue of litter and marine debris. To that end, ACC is working domestically and internationally with government officials, retailers, anti-litter groups and consumers to devise solutions to prevent litter and marine debris.

Some of our more recent activity includes helping develop new and innovative recycling programs nationwide; promoting industry-wide practices to contain plastic pellets; partnering with governments and conservationists to encourage recycling and discourage litter; working to educate children on the link between litter and marine health; working with the National Oceanic and Atmospheric Administration to advance scientific understanding of marine debris; and continuing to innovate and develop smaller, lighter packaging. More information about our activities to help reduce marine debris can be found at: <http://www.marinedebrissolutions.com/default.aspx>

Additionally, last year ACC partnered with the City and County of Honolulu on a pilot project to find and close off potential pathways for trash from land-based sources to migrate into the marine environment. One of the primary sources of litter found near waterways and beaches on Oahu is uncovered public trash cans that allow garbage to blow out. Through our partnership, ACC and the City and County of Honolulu identified a better design for outdoor public garbage cans to keep trash out of parks, and most importantly, out of waterways and the ocean. We anticipate these new and improved bins to be installed in Ala Moana Park in March.

ACC believes that reducing landfill disposal, marine debris and litter requires the implementation of a variety of tools. In addition to efforts that seek to increase recycling and improve solid waste collection infrastructure, opportunities to recover non-recycled plastics may be an option as well. An emerging set of technologies is allowing governments and businesses to convert non-recycled plastics into energy, fuels, and feedstocks, or raw materials for new manufacturing. A range of energy recovery technologies are being used to complement recycling in helping to divert more valuable post-use materials from landfills. Some of the most widely used and rapidly emerging technologies

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<sup>5</sup> See <http://www.bpiworld.org/Default.aspx?pagelid=190439>



include waste-to-energy, plastics-to-fuels, gasification, and solid recovery fuels. It is for this reason that we support HB 749, legislation that would direct the state and each county to consider “waste-to-energy” as a potential solid waste management practice and process.

Thank you in advance for considering our views. If you have any questions or comments, please do not hesitate to contact me at 916-448-2581 or via email at [Tim\\_Shestek@americanchemistry.com](mailto:Tim_Shestek@americanchemistry.com). You may also contact ACC’s Hawaii based representative Red Morris at 808-531-4551.



# The Safety of Polystyrene Foodservice

## *Health Experts' and Agencies' Views*

### **U.S. National Toxicology Program (NTP)**

Dr. Linda Birnbaum, Ph.D., Director, U.S. National Toxicology Program was quoted widely in [Associated Press](#) reports in June 2011: "Let me put your mind at ease right away about polystyrene foam\*" ... [the levels of styrene from polystyrene containers] "are hundreds if not thousands of times lower than have occurred in the occupational setting...In finished products, certainly styrene is not an issue." *Source: news reports of Associated Press story, June 2011*

John Bucher, associate director of the National Toxicology Program, was quoted in [Associated Press](#) reports in August 2011: "The risks, in my estimation, from polystyrene are not very great," he said. "It's not worth being concerned about."  
*Source: news reports of Associated Press story, August 2011*

### **U.S. National Institutes of Environmental Health Sciences (NIEHS)**

[NIEHS](#) in June 2011 noted: "Styrene should not be confused with polystyrene (foam)\*. Although styrene, a liquid, is used to make polystyrene, which is a solid plastic, we do not believe that people are at risk from using polystyrene products."  
*Source: NIEHS web site*

### **Otis Brawley, Chief Medical Officer, American Cancer Society**

[Bloomberg News](#) in June 2011 reported that Brawley said, "Consumers don't need to worry about polystyrene cups and food containers..." Quote: "I see no problems with polystyrene foam\* cups."  
*Source: Bloomberg News, June 2011*

### **Food & Drug Administration**

Based on scientific tests over five decades, FDA has determined that polystyrene is safe for use in foodservice products. Polystyrene meets the FDA's stringent standards for use in packaging both to store and to serve food.

### **Harvard Center for Risk Analysis**

A twelve-member panel of international experts selected by the [Harvard Center for Risk Analysis](#) reported in 2002 that the very low levels of styrene present in foods – whether naturally occurring or from polystyrene foodservice products – does not represent a concern to human health.

[For more information on polystyrene foodservice:](#) [www.plasticfoodservicefacts.com](http://www.plasticfoodservicefacts.com)  
[For more information on styrene:](#) [youknowstyrene.org](http://youknowstyrene.org)

\* Original quotes used the term "Styrofoam". STYROFOAM™ is a registered trademark of The Dow Chemical Company that represents its branded building material products, including rigid foam and structural insulated sheathing, and more. The brand name often is misused as a generic term for foam foodservice products.





**House EEP Hearing**  
**Thursday, Feb. 9, 2017 – 8:30 am**  
**Room 325**  
**HB1545, Relating to Environmental Protection**  
**Position: Oppose**

Chair Lee and Members of House EEP Committee:

I am Dexter Yamada, President of KYD, Inc. dba: K Yamada Distributors. Our company is a locally founded, family run business in Kalihi. KYD, Inc. began in the 1940's as a florist and a supplier of florist supplies. In 1958 we evolved into the packaging company we are today and later expanded into a distributor of many other fine products. KYD, Inc and its sister company, Hawaii Foam Products, LLC provide jobs to 100 men and women and contribute much to Hawaii's economy in the form of payroll and taxes. We locally manufacture and distribute food-grade expanded polystyrene food containers throughout the State.

HB 1545 proposes banning the use of EPS food service containers in state-owned or state-run buildings and facilities and requires that food and beverages be served in compostable containers. This is comparable to legislating that only organic foods will be served in such facilities.

Critics of food-grade EPS containers, or the foam plate lunch containers, continue to scare people that it is toxic and bad for the people and environment. HB 1545 targets the use of FDA approved, food-grade expanded polystyrene (EPS) food service containers based on misinformation.

For the record, I would like to correct misinformation presented about food-grade EPS food containers:

- 1) Critics of the EPS food service containers like to confuse Styrofoam™ with food-grade EPS food containers. Styrofoam™ is a Dow brand name for industrial use like insulation; packaging material. Styrofoam™ is not a FDA-approved food-grade product and is not used for food service containers.
- 2) Most people encounter styrene as part of their daily lives, though in small amounts in foods and beverages for produced synthetically. Scientific studies have shown that the small amounts of styrene consumers may be exposed to are not harmful; studies have also shown that, should exposure occur, styrene does not stay in the body for long and is rapidly metabolized and excreted.

Styrene, Food and Packaging	
Food/Beverage (No man-made styrene contact)	Styrene Levels Measured (parts per billion)
Cinnamon	170-39,000
Beer	10-200
Beef	5.3-6.4
Coffee Beans	1.6-6.4
Strawberries	0.37-3.1
Peanuts	1-2.2
Wheat	0.4-2

**FOR COMPARISON:**  
 Styrene exposure level from a polystyrene cup:  
**5-10** parts per billion







Cinnamon has the most styrene, 170-39,000 parts per billion compared to a foam cup, 5-10 parts per billion. See [www.plasticfoodservicefacts.com/main/Safety/National-Toxicology-Program](http://www.plasticfoodservicefacts.com/main/Safety/National-Toxicology-Program) for more information about the safety of polystyrene food service containers.

Please see the attachment for more information and links about the safety of food-grade EPS.

- 3) A ban that singles out food-grade EPS food containers does little to reduce litter or ocean debris harmful to marine life and the environment. The composition of ocean debris has not been fully discussed. Marine and industrial plastics, surfboards, ice chests, coolers, etc are found in the ocean and contribute to debris, perhaps more than EPS foam containers.

The 5 most common items found during International Coastal Cleanup are plastic cigarette butts, food wrappers, plastic beverage bottles, plastic bottle caps, and plastic straws and drink stirrers. Plastics can enter into the ocean through ineffective or improper waste management, intentional or accidental dumping and littering on shorelines or at sea, or through storm water runoff. (Trash Talk: Marine Debris and Plastics, NOAA, Sept. 17, 2015)

A local, Big Island marine biologist said that 26-89% of the island's ocean debris is land-based sources: straws, wrappers, insulation, shipping containers, hot coffee cups, meat trays, saimin containers. EPS foam containers was about 1% of the debris.

Chelsea Rochman, an ecologist from US-Davis noted that a lot of ocean debris is "microplastic" or pieces smaller than 5 millimeters, whose source may be from facial scrubs, fibers shed by synthetic clothing in the wash, or eroded elements from larger debris. No EPS foam was mentioned.

So what's killing the albatross? Stomach contents show a lot of cigarette lighters, bottle caps and other debris. Not EPS foam containers.





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As someone who has been in the business of packaging for all my life, I can say that compostable products are not always a better alternative. Compostables consume more raw materials, water and electrical use, shipping costs since there are no local compostable manufacturers. The carbon footprint of EPS foam containers is much smaller. One 20 foot shipping container of resin beads replaces the importation of 9 containers of finished EPS foam products. On Oahu, EPS foam containers are welcomed at HPower because it is made of 92 per cent air and burns at 18 BTU. Compostables, like EPS foam containers, are sent to HPower, since there is no local commercial/industrial composting facilities.

Functionality of EPS food containers means that it can maintain heat well, it's hygienic, prevents leakage of food, does not compromise the taste of food and it is inexpensive. This allows schools, hospitals and other state institutions to make better use of their limited budgets. Functionality of compostable containers often do not measure up to the EPS food containers, in which compostable containers get soggy if foods with gravy; even fresh fruits and salad sit in it for too long a time.

Compostable product cost comparisons vary, depending on the quality and material it is made of, but the pricing is clearly higher. For example, an 8" square foam container costs \$19.00 case/200 containers; compostable containers for the same size costs about \$40.00 case/200 containers.

The proposed ban on food-grade EPS food containers unnecessarily contributes to Hawaii's difficult business environment. We support the right of business and consumers to choose FDA-approved products they desire and are willing to pay for such products based on their personal beliefs and lifestyle.

Thank you for the opportunity to testify.





## INFORMATION ABOUT FOOD-GRADE EXPANDED POLYSTYRENE DISPOSABLE PRODUCTS

- **FDA Determines Polystyrene Is Safe for Use in Food Contact Since 1958**

The federal Food and Drug Administration (FDA) strictly regulates all food packaging materials including polystyrene – from which components can reasonably be expected to migrate into food. For every food contact material, there must be sufficient scientific information to demonstrate that the use of the material is safe.

- Following manufacture of polystyrene, tiny amounts of styrene may remain in the polymer. So FDA evaluates the safety of the food contact material itself (polystyrene) and the safety of substances that can migrate into foods and beverages (styrene). The result of this evaluation is that FDA has approved polystyrene as safe for use in contact with food for decades.
- In 2013, the American Chemistry Council's Plastics Foodservice Packaging Group provided updated styrene migration data to FDA. <http://plasticfoodservicefacts.com/Safety-of-Styrene-Based-Polymers-for-Food-Contact>

The data show that current exposures to styrene from the use of polystyrene food contact products remain extremely low, with the estimated daily intake calculated at 6.6 micrograms per person per day. This is more than **10,000 times** below the safety limit set by FDA (the FDA's acceptable daily intake value of styrene is calculated to be 90,000 micrograms per person per day).

- **Harvard Center for Risk Analysis Concludes No Cause for Concern from Exposure to Styrene from Foods**

The Harvard study (2002) reported that styrene is naturally present in foods such as strawberries, beef, and spices, and is naturally produced in the processing of foods such as wine and cheese. The study also reviewed all of the published data on the quantity of styrene contributed to the diet due to migration from food-contact packaging. The scientists concluded that there is no cause for concern from exposure to styrene from foods or polystyrene used in food-contact applications, such as packaging and foodservice containers.

**For More Information:**

- Contact the [Plastics Foodservice Packaging Group \(PFPG\)](#) of the American Chemistry Council, ([mike\\_levy@americanchemistry.com](mailto:mike_levy@americanchemistry.com)) for information on FDA reports referenced above.
- The Styrene Forum FAQ (Frequently Asked Questions), "[What about the safety of polystyrene food packaging?](#)"
- "A Comprehensive Evaluation of the Potential Health Risks Associated with Occupational and Environmental Exposure to Styrene", Harvard Center for Risk Analysis, Harvard School of Public Health, Boston, MA (*Journal of Toxicology and Environmental Health*, Volume 5, Number 1-2, January – June 2002), published quarterly by Taylor & Francis.

- **Food-Grade EPS Applications**

Food-grade expanded polystyrene is referred to as Expanded Polystyrene, EPS, Polystyrene Foam<sup>1</sup>, and Foam Products. It's the material of choice for egg cartons, food take out containers, meat trays, disposable plates and disposable cups

- Lightweight





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- Maintains temperature/heat well
- Hygienic, prevents leakage of food and does not compromise the taste of the food
- Inexpensive

<sup>1</sup> Foam foodservice products are not Styrofoam. STYROFOAM™ is a registered trademark of The Dow Chemical Company that represents its branded building material products, including rigid foam and structural insulated sheathing, and more.

- **Life Cycle Inventory (LCI) of Foodservice Products Valuable Tool for Industry and Policy Makers**

A LCI is an analysis of the inputs and outputs of a given product system, a cradle-to-grave picture of a product's environmental attributes, from raw material extraction and manufacturing to post-use recover or disposal. It's easy to focus on a product's end of life since that's what consumers see---but the environmental footprint of any product includes all of its impacts, such as raw material use, resources used in manufacture, fuel use and emissions in transport and more.

The 2006 Foodservice Packaging LCI, a peer-reviewed study from Franklin Associates, Ltd, provides a comprehensive look at the energy and environmental performance of food servicing packaging products made with EPS, bleached paperboard or corrugated paperboard, including hot and cold beverage cups and sandwich "clamshells". It provides comparative information on air, water, solid waste and energy as well as a complete range of post-use options such as recycling, composting, land filling and waste-to-energy incineration. [http://www.dart.biz/web/envIRON.nsf/files/Franklin2006.pdf/\\$FILE/Franklin2006.pdf](http://www.dart.biz/web/envIRON.nsf/files/Franklin2006.pdf/$FILE/Franklin2006.pdf)

The 2011 Expanded LCI study summary can be found at

<http://www.americanchemistry.com/Media/PressReleasesTranscripts/ACC-news-releases/New-Study-Polystyrene-Foam-Cups-and-Plates-Use-Less-Energy.html>

The full peer reviewed study can be found at <http://plasticfoodservicefacts.com/Life-Cycle-Inventory-Foodservice-Products>





February 9, 2017

TIM VANDEVEER  
Chair,  
MARIE STRAZAR  
Vice Chair

MARGARET WILLE  
SEAN SMITH  
Legislative Committee Co-Chairs

**HB1545**

**RELATING TO ENVIRONMENTAL PROTECTION**

Thursday, February 9, 2017 8:30 am State Capitol, Conference Room 325

Representative Chris Lee, Chair  
Representative Nicole Lowen, Vice Chair  
Committee on Energy and Environmental Protection

**Submitted on Behalf of the Democratic Party of Hawai'i**

Given the Democratic Party of Hawai'i's legislative priority to ban polystyrene foam food and beverage containers, the DPH supports HB1545 "Relating To Environmental Protection" which would prohibit the use of polystyrene foam food and beverage containers at state facilities as of January 1, 2020, and would prohibit purchase contracts for the same as of January 1, 2018, **The DPH is however disappointed that given the dire straits of our marine environment that this legislation is such a weak response** to the now realized devastating impact polystyrene foam is having on our marine life, including on our shrinking marine bird populations.

Respectfully submitted,

*/s/ Tim Vandever* (tim@hawaiidemocrats.org)  
Chair of the Democratic Party of Hawai'i  
*/s/ Marie (Dolly) Strazar* (hilomds@gmail.com)  
Vice Chair of the Democratic Party of Hawai'i

*/s/ Margaret Wille* (margaretwille@mac.com)  
*/s/ Sean Smith* (simashang@yahoo.com)  
Legislative Committee Co-chairs



**Environmental Caucus**  
of the Democratic Party of Hawai'i

Testimony  
HB 1545/1577

Relating to Polystyrene Containers

Hearing Date: Thursday, February 9, 2017 Hearing Time: 8:30AM

Place: Conference Room 325

Committee: Energy & Environmental Protection (EEP)

Aloha Chair Lee and Members of the EEP Committee,

I, Lisa Hinano Rey, on behalf of the Environmental Caucus of the Democratic Party of Hawaii, as a member of the steering committee and a member of the Natural Resource Subcommittee of the Environmental Caucus of the Democratic Party of Hawaii want to urge that you vote in favor of HB 1545/1577 to prohibit state agencies and facilities (including DOE & Public Schools) from purchasing or using polystyrene for food and beverage. It requires that readily available compostable food containers be used in place of harmful polystyrene.

The Environmental Caucus of Hawaii supports the protection of Hawaii's environment, its resources and natural beauty for the benefit of our communities, our visitors and for the benefit of future generations. The plastic pollution that is caused by polystyrene food containers in Hawaii is significant and must be curtailed as soon as possible.

It is also important to speak on behalf of the fragile ecosystems in Hawaii, including the threatened wildlife which must be protected from the undesirable consequences of polystyrene pollution and micro-polystyrene pollution. These micro plastics are becoming a part of the food web and are very dangerous to Hawaii's marine wildlife and birds.

The environmental caucus, along with our general membership, who voted in favor of this measure, urges you to please vote in favor of this important bill.

Sincerely,

Lisa Hinano Rey  
Female Representative to State Central Committee  
Environmental Caucus of the Democratic Party of Hawaii

***The Environmental Caucus of the Democratic Party of Hawaii hopes that you will join us in securing an environmentally sustainable future for Hawai'i and its Ohana.***

627 South Street Honolulu, HI 96813

website: [hawaiiGREENcaucus.org](http://hawaiiGREENcaucus.org) email: [ecodemhi@gmail.com](mailto:ecodemhi@gmail.com)

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 3:10 PM  
**To:** EEPtestimony  
**Cc:** dana@danaland.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dana Land	Plastic Free Hawaii	Support	No

Comments: I feel very strongly about the importance of ending the use of foam, a product that is NOT biodegradable and sometimes finds its way into our fragile oceans endangering our sea life.

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**Sent:** Tuesday, February 7, 2017 7:27 PM  
**To:** EEPtestimony  
**Cc:** kahakai.cleanups@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Megan Lamson	Hawai'i Wildlife Fund	Support	No

Comments: Aloha House Representatives, I am in FULL support of House Bill 1545, prohibiting the use expanded polystyrene foam containers in schools and state-run facilities after January 1st, 2020. It does our 'āina and our ocean no good to continue to import products that have no viable or pono disposal mechanisms. We have environmentally better options for our restaurants and an obligation to our communities, visitors, ocean and land to make more earth-friendly choices. There are several local distributors that are already selling eco-friendly, compostable foam food service alternatives, including both Sustainable Island Products, KYD, Suisan, FFF Distributors, and Styrophobia, and these options are usually at a cost difference of a dime or so more than the traditional more wasteful single-use plastic options. I hope that you take the time to consider the full "life" cycle of these products when making your decision. A negligible cost difference now can mean a world of hurt for marine wildlife and human health in the very near future. Furthermore, two scientific journal articles were published in recent years from studies on Hawai'i Island (Carson et al. 2013) and Maui (Blickley et al. 2016) that highlighted examples of locally-sourced marine debris. I am on travel and away from my computer at the moment but am happy to forward these after I return on 2/17. Both studies prove that land-based debris from local sources can and DO end up as marine debris along our shorelines. Plus, for the past 20+ years, Hawai'i Wildlife Fund and volunteers have removed over 200 metric tons of marine debris from the shores of Hawai'i nei, most of which was PLASTIC. This large amount highlights that this plastic pollution problem is not something we can ignore any longer. We have to get better at taking some responsibility for our own LOCAL input and sources of marine debris, and to stop pointing the finger at faraway places and commercial fishing industries. Marine debris is a people problem and it stems from all people. This proposed bill would be a great step in the right direction and I urge you to move towards this more this zero waste pathway. We can and must do better for our Islands--please pass this very important measure!! Please vote to SUPPORT the proposed foam bill (HB 1545) at this week's hearing for the health of our island ecosystems and our keiki into the future. Mahalo for your time and consideration. Sincerely, Megan R. Lamson, M.S. Hawai'i Wildlife Fund (wildhawaii.org) Hawai'i Island Program Director meg.HWF@gmail.com 808-217-5777

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 9:06 PM  
**To:** EEPtestimony  
**Cc:** adrianaquijano@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Adriana Quijano	ANO SWIMWEAR	Support	No

Comments:

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**House Bill 1545: Relating to Environmental Protection  
In Strong Support**

Hearing Date: Thursday February 9th, 2017

Hearing Time: 8:30 AM

Place: Conference Room 325

Committee: Energy & Environmental Protection

Aloha Chair Lee, members of the committee on Energy & Environmental Protection,

I am writing to you on behalf of the Surfrider Foundation's Oahu Chapter, in strong support of HB 1545, relating to Environmental Protection through the prohibition of Polystyrene Foam Food containers in our State owned and run buildings.

As an organization that engages thousands of volunteers each year on the issues of plastic pollution through beach cleanups, educational info nights, and stream cleanups, Surfrider is extremely familiar with the detrimental effect these Polystyrene foam containers are having on our environment and ultimately our economy. Each year we see more and more plastics aggregating on our State beaches and foam is one of the most found items during our beach cleanups. Polystyrene Foam, like plastic bags, has the characteristic of being extremely light and brittle – thus leading to its escape and nasty ability to break into smaller pieces in the environment. If it remains intact it clogs stormdrains and other runoff infrastructure and if it breaks into pieces, it can end up in the stomachs of many marine and stream creatures. These effects are all detrimental to the health of our ecosystems and leave an ugly scar on the landscape that provides the basis for our whole economy.

Through years of investigation and generating collective understanding of the issue, Surfrider and its partners have found an undeniable amount of evidence that points to banning foam as a necessary step for our State to move forward in a sustainable way. Our State Department of Transportation Highways program recently identified foam and plastic bags as the two largest contributors to trash problems around our State. These are unnecessary materials that are costing our tax payers millions of dollars each year to clean up. The bullet points catalogued below highlight studies on Global, National, State, and County levels identifying the financial cost of plastics like foam to our economy.

Surfrider advocates for our State to rethink the way it creates, handles, and discusses waste. Our view is that we can become a leader in a regenerative economy in which we value reuse and recovery over the single-use items. Single-use plastics, like polystyrene foam, are a fossil fuel driven, carbon emitting industry that has no place in an island economy where space is limited and our environmental health is the most important issue to our economy.

Alternatives to foam and other forms of plastic are easily accessible, with the most sustainable version being certified compostable products.

As the leading non-profit in Hawaii's Ocean Friendly Restaurants Program, Surfrider and its partners have certified over 100 hundred businesses around the State that illustrate that foam free is not only the right thing to do, but is an economically viable way to operate. Though the program is only a year old, the amount of restaurants demonstrating their ability to operate in this manner continues to not only grow, but be an incentive for customers to frequent the restaurants as our population understands more and more the destructive effects these types of plastics are having on our world.

While litter reduction campaigns should continue around the world, they are proving ineffective as a way of keeping plastic contamination out of our oceans. Despite efforts to stop litter the amount of plastic entering our oceans each year is rising exponentially, with predictions showing that by 2050 there will be more plastic by weight in the ocean than fish. Each step that we make towards taking these items out of circulation allows us to have a positive impact on reducing this toxic soup that is accumulating in our oceans.

Furthermore, 80% of our Department of Education schools are using foam products for school lunches, throwing away over 800 foam food containers per day, per school. This is not the example our State should be providing for our youth who have to bear the consequences of a future island covered in trash. Additionally, evidence from the National Institute of Health indicates styrene as a likely human carcinogen, with hot lunches being the most likely to leach the chemicals back into food. This is not an acceptable situation for our keiki. We should be protecting the children in schools without question.

The referenced bullet points below outline the economic, environmental, and human health impacts of foam to our islands.

#### Cleanup Costs & Economic Benefits

- Plastic is costing cities, counties, states, & countries millions of dollars and our global economy billions. Costs are passed to the taxpayers by burdening our storm water management systems with the need for expensive best management practices and the costs of cleanups.
- Hawaii State Department of Transportation has produced a trash plan that shows styrofoam and plastic bags as the top two contributors to the waste stream.<sup>1</sup>
- The Natural Resource Defense Council (NRDC) created a plastic cleanup valuation study for 90+ counties in California:<sup>2</sup>
  - CA taxpayers are paying \$428 million per year to clean up plastic through storm drain management, street sweeping, and cleanups.
  - San Diego County (with population of 1.3 equivalent to Hawaii) spends \$14 million alone on plastic cleanup

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<sup>1</sup> [http://www.stormwaterhawaii.com/swmp\\_wp/wp-content/uploads/2014/10/Trash-Reduction-Plan\\_FINAL-10-18-16.pdf](http://www.stormwaterhawaii.com/swmp_wp/wp-content/uploads/2014/10/Trash-Reduction-Plan_FINAL-10-18-16.pdf)

<sup>2</sup> <https://www.nrdc.org/sites/default/files/ca-pollution-in-waterways-IB.pdf>

- United Nations Environmental Program Global Estimates are in the billions for the global cost to cleanup plastics, \$14 billion for marine plastic alone.<sup>3</sup>
  - This cost is closer to \$78 billion annually if all costs are considered, including the cost lost in fossil fuel production and loss of resources.
- Burden on the public
  - According to cleanup hours recorded across Hawaii's beach cleaning organizations and volunteer hour base rates, we spent \$750,000 - \$1 million on beach cleanups in 2016 alone.

### Environmental Impact

- It is argued that styrofoam is acceptable because we can incinerate it for energy. However, this approach is not without significant impacts. According to the Hawaii DOH Clean Air Branch the Covanta H-POWER plant emits 0.15 million metric tons of carbon dioxide<sup>4</sup> (a potent greenhouse gas) annually. Although touted as a "clean energy solution" for Hawaii, H-POWER only generates about 3% of Oahu's energy needs<sup>5</sup> while still emitting greenhouse gases through burning plastic.
- Further, for each ton of polystyrene not produced, 2.5 metric tons of carbon dioxide emissions are avoided. This directly supports Hawaii's greenhouse gas reduction goals as stated in the Aloha + Challenge and as mandated by the US EPA.<sup>6</sup>
- The U.S. Environmental Protection Agency's Waste Reduction Model (WARM) report shows that burning polystyrene emits more carbon dioxide equivalent than other plastics. For each ton of polystyrene incinerated, 1.64 tons of carbon dioxide equivalent are emitted.
- If burned at HPower, one compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. And burning compostable products comes without the toxic ash or smoke that EPS foam creates in the burning process.
- Fiber clamshells are also less than half the volume of EPS, so a restaurant could fit about twice as many clamshells on the same amount of shelf space or have more space for other things.
- The material for fiber containers can be grown and then made here in Hawaii, so more jobs and sustainable ones, not jobs that are exposing workers directly to large amounts of toxic chemicals. EPS can also be made here, but raw, toxic source chemicals need to be shipped to Hawaii.

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<sup>3</sup> [www.unep.org/pdf/ValuingPlastic/](http://www.unep.org/pdf/ValuingPlastic/)

<sup>4</sup> <http://energy.hawaii.gov/wp-content/uploads/2011/10/ghg-inventory-20081.pdf>

<sup>5</sup> [www.islandpulse.org](http://www.islandpulse.org)

<sup>6</sup> <https://www3.epa.gov/epawaste/conservation/tools/warm/pdfs/Plastics.pdf>

- EPS is designed to be used once, and according to the US EPA less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally.
- According to the EPA Waste Reduction Model Report, 7% of plastic waste generation in US is polystyrene. Of our total plastic recovery, polystyrene makes up 0.7% of recycled plastic

#### Human Health

- Air pollution from polystyrene
  - Styrene is reasonably anticipated to be a human carcinogen and a confirmed animal carcinogen as reported by the National Institute of Health in their Report on Carcinogens (2011); this conclusion is also endorsed by the National Academy of Sciences (2014)<sup>7</sup>
  - When combusted, styrene produces benzaldehyde (US EPA classifies this as a hazardous substance), acetophenone (Group D carcinogen by US EPA, causes chromosomal damage on hamsters, but hasn't been tested in humans), styrene oxide (main metabolite of styrene, which is known as carcinogenic).

Surfrider Foundation deeply appreciates your time and energy in considering these important matters and is available to answer questions that you may have.

Mahalo,

A handwritten signature in black ink, appearing to read 'Rafael Bergstrom', with a stylized flourish at the end.

Rafael Bergstrom  
Oahu Chapter Coordinator, The Surfrider Foundation

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<sup>7</sup> <https://www.niehs.nih.gov/health/topics/agents/styrene/index.cfm>



**Conservation Council  
for Hawai'i**

*Hawai'i's voice for wildlife*

*Kō Hawai'i leo no nā holoholona lōhiu*



Testimony Submitted to the House Committee on Energy and Environmental Protection  
By the Conservation Council for Hawai'i  
Hearing: Thursday, February 9, 2017 8:30 am  
Room 325

Support for HB 1545 Relating to Environmental Protection

Chair Lee, Vice Chair Lowen, and Members of the Committee,

Aloha. The Conservation Council for Hawai'i supports HB 1545, which prohibits the use of polystyrene food and beverage containers in state-owned and state-run buildings and facilities beginning 1/1/2020. Requires that food and beverages be packed in compostable containers, and prohibits new contracts to purchase polystyrene food or beverage containers beginning 1/1/2018.

Please consider a ban of polystyrene foam by food vendors, as called for in SB 1109. Polystyrene foam is toxic and everywhere. It does not break down and threatens marine and other wildlife. It is ugly and mars the landscape, and it takes up precious space in our landfills. There are healthy and safe alternatives to polystyrene foam food containers. There is no reason to keep using polystyrene foam.

Please pass HB 1545. Mahalo nui loa for the opportunity to testify.

*Marjorie Ziegler*

Marjorie Ziegler



Telephone/Fax: 808.593.0255 | email: [info@conservehi.org](mailto:info@conservehi.org) | web: [www@conservehi.org](http://www@conservehi.org)  
P.O. Box 2923 | Honolulu, HI 96802 | Office: 250 Ward Ave., Suite 215 | Honolulu, HI 96814  
President: Wayne Tanaka | Vice President: Koalani Kaulukukui | Secretary: Rachel Sprague  
Treasurer: Les Welsh | Director: Anne Walton  
Executive Director: Marjorie Ziegler | Administrator: Jonnetta Peters





**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 9:24 AM  
**To:** EEPtestimony  
**Cc:** milholen.jennifer@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jennifer Milholen	Kokua Hawaii Foundation	Support	Yes

Comments: Department of Education (DOE) – 80% of schools use foam trays and plastic forks, ~800 of each per day per school. These foam trays have only one use and overflow dumpsters that require daily pickup, which is enormously expensive for the state. We have heard the demands from parents and students who have no option but to eat off of foam containers in school lunch programs. They want this product out of schools because of the toxic materials that leach from it into their food, and because of the mountains of it that pile up at landfills or are burned into toxic ash at the incinerator. Our State agencies should be a leader in sustainability, setting example for responsible resource use. The state, and each county independently, have declared their commitment to protecting natural resources and making management decisions based on sustainability. This is an opportunity for them to demonstrate their commitment.

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# Beach Environmental Awareness Campaign Hawai'i

*P.O. Box 25284 · Honolulu · Hawai'i · 96825*

*(808) 393 2168 · [www.b-e-a-c-h.org](http://www.b-e-a-c-h.org)*

DATE: 8th February, 2017

TO: Chair Lee and Members of the Energy & Environmental Protection Committee

FROM: Suzanne Frazer, President, Beach Environmental Awareness Campaign Hawai'i

RE: **TESTIMONY IN SUPPORT OF HB1545**

Prohibits the use of polystyrene foam food containers in state owned & run facilities  
Committee hearing on Thursday 9th February, 2017 at 8:30AM

Aloha Chair Lee and Members of the Energy and Environmental Protection Committee,

I am writing on behalf of Beach Environmental Awareness Campaign Hawai'i in support of HB1545 which bans the use of polystyrene foam food containers in state owned and run facilities and prohibits new contracts to purchase polystyrene starting 1/1/18. B.E.A.C.H. encourages the committee to pass this bill. We would like to see the ban start sooner than 1/1/20 as children are eating out of polystyrene foam every day at school and it is toxic to their brain and nervous system. It is not worth it for these children to be exposed to this substance for even another day let alone 3 more years! It would be better if the whole ban takes place immediately - this year - including both the use and the ban on purchase contracts.

Also in regards to the requirement that food and drinks are served in compostables. This could be broaded to include reusables (that are not disposable or compostable) and recyclable containers made of materials other than plastic. This would give more options for serving food and drinks in state run and owned facilities than just requiring compostables.

Polystyrene or number 6 plastic, is one of the three most harmful plastics in terms of chemicals. Polystyrene is made from petroleum and contains benzene which is carcinogenic. It leaches styrene, a chemical that is toxic to the brain and nervous system and has been found to adversely affect red blood cells, liver, kidney, stomach and cause cancer in animal studies.

Styrene is released especially when the container or cup is subjected to heat, so styrofoam containers and cups are a very bad choice for hot food and drinks. Oily and acidic foods and drinks also facilitate the migration of styrene from the container into the food/drink.

Polystyrene food containers have also been shown to have estrogenic activity (EA) meaning that the chemicals from polystyrene act like a synthetic form of estrogen or block the action of naturally occurring estrogen in the body and therefore cause endocrine disruption. In humans, chemicals having EA can cause prostate and breast cancer and many reproductive health problems. Unborn children, babies and young children are especially sensitive to low doses of chemicals having EA.

In the polystyrene plastics industry, workers have been found to have higher incidences of cancer

including leukemia and suffer from many adverse health effects from the inhalation of styrene. Styrene causes neurotoxicity and therefore affects people's nervous system and also impairs the immune system.

Polystyrene containers are also not good for the environment. Plastic does not biodegrade. It does not have a timeline for disappearing. Plastic lasts forever. When plastic gets into the ocean it accumulates additional poisons such as dioxins, DDT, DDE and other persistent organic pollutants (POPs). Styrofoam has been found inside of sea birds and fish. The ingestion of plastic not only causes blockages and starvation, but the animals and birds are harmed through the uptake of toxic chemicals such as styrene which leaches from the ingested plastic and accumulates in the fatty tissues of the animal. Styrene is also found in the fatty tissues of humans. In a 1982 study by the EPA (the National Human Adipose Tissue Survey), 100% of Americans studied had styrene in their fatty tissues.

We need to do everything we can to reduce plastic on beaches and in the ocean in order to save marine life. Polystyrene cups, containers and pieces of styrofoam can and do blow and wash into the ocean which is why polystyrene containers and cups need to be banned. Polystyrene foam is lightweight, easily breaks into pieces and is wind blown. Picking up small broken pieces of polystyrene foam in wind at the beach is difficult. According to Dr. Anthony Andrady, out of all the types of plastic, number 6 - polystyrene breaks down quicker when in sea water.

Your leadership is needed to help protect the people of Hawai`i, marine life, the food chain and the environment from the harmful effects of polystyrene foam. Please take action to ban the use of polystyrene foam food and drink containers. Thank you.

Please accept this as written testimony in support of this bill.

Sincerely,



Suzanne Frazer.  
President,  
B.E.A.C.H.



10 years  
2006 - 2016

*Celebrating a decade of volunteer  
service and environmental action*

*Beach Environmental Awareness Campaign Hawai'i is an all volunteer, non-profit organization that brings awareness and solutions to marine debris through environmental education, plastic reduction/litter prevention campaigns, and marine debris removal and research in order to protect marine life, sea birds and the ocean/coastal environment.*



February 8, 2017

HB1545

Testifying in SUPPORT

2/9 8:30am, room 325

Aloha House Committee of Energy and Environmental Protection,

My name is Tiare Lawrence and I am the community organizer for the Hawaii Alliance for Progressive Action (HAPA). HAPA along with various partner organizations recently hosted the People's Congress last year. We held island forums on Kaua'i, Maui, Oahu, and Hawai'i Island and the People's Congress Hawai'i in December 2016. Over 800 people participated statewide. Environment was one of seven issue areas we focused on. We tasked participants with identifying the root causes of the systemic problems in Hawai'i as well as identify solutions to these problems. Every forum identified single use plastics and styrofoam as a problem and as a solution participants were in strong support of legislation to ban the use and sale of styrofoam in Hawaii. HAPA strongly supports HB325.

In 1986 EPA declared that styrene production is the 5th largest producer of hazardous waste in the world. One of the countless luxuries Westerners enjoy is the illusion that plastic and styrofoam will just vanish or disappear. It is argued that styrofoam is acceptable because we can incinerate it for energy. On outer islands that is not an option.

HAPA believes this bill will support efforts to have cleaner beaches and a more sustainable society throughout Hawai'i.

We humbly ask that you pass this bill out of your committee.

Mahalo Nui,

Tiare Lawrence

Community Organizer

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 6:49 AM  
**To:** EEPtestimony  
**Cc:** wild@aloha.net  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Hannah Bernard	Hawai'i Wildlife Fund	Support	No

Comments: EPS is designed to be used once, and according to the US EPA less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally. EPS Foam is composed of over 90% air, so even when properly disposed of, foam products easily fly out of trash bins and dumpsters, and they enter into the natural environment, eventually polluting our ocean and negatively impacting ocean health and threatening marine wildlife. EPS Foam also breaks apart more easily and quicker than other plastics, making it more difficult to clean up than other plastics and easier for animals to mistake as food and ingest Styrene is reasonably anticipated to be a human carcinogen and a confirmed animal carcinogen as reported by the National Institute of Health in their Report on Carcinogens (2011); this conclusion is also endorsed by the National Academy of Sciences (2014) If burned at HPower, one compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. And burning compostable products come without the toxic ash or smoke that EPS foam creates in the burning process.

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**To:** EEPtestimony  
**Cc:** jpetrick03@icloud.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
joseph petrick	Individual	Oppose	No

Comments:

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**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Edgar Espero	Individual	Comments Only	No

Comments: Plastic pollution continues to grow as a source of harm and ruin to the environment. I firmly support the ban of all single use plastics especially polystyrene foam containers by food vendors.

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**Sent:** Monday, February 6, 2017 6:51 PM  
**To:** EEPtestimony  
**Cc:** alohawhitcombs@icloud.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/6/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
lindsey whitcomb	Individual	Comments Only	No

Comments: i am writing in support of this bill; restriction of styrofoam use is long overdue & many effective alternatives exist that have notably fewer negative environmental impacts. my only reservation re: this writing is the initiation date of 2020 seems much too delayed & i would request that the committee consider moving the initiation date up to mid-2018 as i feel that it allows proper preparation time for vendors to switch to compostable alternatives.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 7:28 AM  
**To:** EEPtestimony  
**Cc:** alohamjb@hotmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mary Jo Buell	Individual	Comments Only	No

Comments: Aloha, I believe restaurants and businesses should look at the greater good of the island state of Hawaii ie. Oahu and stop using these dangerous, obnoxious containers. There are alternatives. We need to think of the good of all the people and set an example. Stop using these containers now and help save our beaches and wildlife from litter and poor choice of food. Thank You.

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February 8, 2017

Aloha Chair Lee and Members of the EEP Committee,

My name is Sarah Cauthen, and I am a resident of Honolulu. I am writing in full support of HB 1545. I am strongly opposed to the continued use of polystyrene products due to the widespread environmental dangers this product causes. Polystyrene is everywhere; you cannot go to the beach or on a hike without seeing it littered in nature. I love to swim in the ocean, but I cannot feel anything but disgust when I have to swim through clusters of broken down styrofoam. I worry about others who may not be aware of the dangers of this product and accidentally inhale or digest these products. Similarly, I am concerned for the marine life that is most certainly ingesting these broken down pieces littering their home.

EPS Foam is designed for single-use, and, according to the US EPA, less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally. This is simply allowing for polystyrene to remain in our trash system locally or wind up littered on our land. EPS Foam is composed of over 90% air, so even when properly disposed of, foam products easily fly out of trash bins and dumpsters, and they enter into the natural environment. This littering of polystyrene eventually pollutes our ocean, negatively impacting ocean health and threatening marine wildlife. Additionally, it also poses a threat to the health of wildlife on land.

EPS Foam also breaks apart more easily and much faster than plastics, making it more difficult to clean up than other plastics and easier for animals to mistake as food and ingest. Additionally, similar to plastics, it does not easily decompose and can remain a pollutant in the environment for hundreds of years. Styrene is reasonably anticipated to be a human carcinogen and a confirmed animal carcinogen as reported by the National Institute of Health in their Report on Carcinogens (2011); this conclusion is also endorsed by the National Academy of Sciences (2014).

If burned at HPower, one compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. At the same time, burning compostable products comes without the toxic ash or smoke that EPS foam creates in the burning process. This is both a cheaper option and a much more environmentally sustainable one. We need to defend our land from this deadly pollutant and ensure that this island remains healthy for generations to come. I urge you to support HB 1545 in order to take this step in protecting our 'Aina.

Sincerely,  
Sarah Cauthen  
Contact: [sgreearc@gmail.com](mailto:sgreearc@gmail.com)

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 7:24 AM  
**To:** EEPtestimony  
**Cc:** zach.mermel@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Zachary Mermel	Individual	Support	No

Comments: I strongly support this measure, for the benefit of future generations of Hawaii's residents, and the health of the 'aina in general.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 7:21 AM  
**To:** EEPtestimony  
**Cc:** yusuf.misdaq@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Yosuf Misdaq	Individual	Support	No

Comments: In a precious and delicate environment such as Hawaii, the balance and weight of decisions becomes all the more significant. Foam is a substance that can have a very broad and negative impact on the beauty and environmental stability of this wonderful land. It has been proven (as other supporters will no-doubt testify with numbers) to have a negative effect that far outweighs any perceived pluses for business etc. On such a small island, we need to be using materials that can bio-degrade back into the land, gracefully. What else makes sense? Do we want to keep producing and using things we can't properly throw away? If so, we will be hoarders, and there's nothing worse than a hoarder - except perhaps a hoarder who is also destroying their surrounding environment for others (and future others). We support the notion to ban polystyrene (foam) for food beverages. Thank you for your time.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 5:51 AM  
**To:** EEPtestimony  
**Cc:** jhtakaya@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jessica Swart	Individual	Support	No

Comments: Please choose to ban styrofoam in favor of more eco-friendly packaging.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 4:07 AM  
**To:** EEPtestimony  
**Cc:** suzannakinsey@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Suzanna Kinsey	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 1:09 AM  
**To:** EEPtestimony  
**Cc:** 7treasuresacupuncture@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
katherine fisher	Individual	Support	No

Comments:

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**Bill# HB1545**

Hearing Date: 02/09/2017

Hearing Time: 8:30am

Place: 325

Committee: EEP

I hereby would like to testify in support of this bill. My name is Paula Moehlenkamp, I am from Senator Stanley Chang's district, and I have been living in Hawaii for 2 years now. I am a graduate student in the Department of Oceanography at UH Manoa.

I decided to become foam free, because I feel this is, where I can start contributing a little to a more sustainable world. Plastic waste is something that can successfully be regulated on a local level and make a great difference. In my opinion, it is largely unnecessary to eat from styrofoam containers as there is more sustainable alternatives available.

First of all, the environmental impact of EPS is large: EPS is being designed to be used it once, and according to the US EPA less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally. EPS Foam is composed of over 90% air, so even when properly disposed of, foam products easily fly out of trash bins and dumpsters, and they enter into the natural environment. Snorkeling or diving in the waters around Hawaii, I have frequently encountered styrofoam containers or parts of them.

EPS Foam also breaks apart more easily and quicker than other plastics, making it more difficult to clean up and easier for animals to mistake as food and ingest. During my degree I have worked on microplastic pollution, which presents a threat for marine life and ultimately us as we base our living on resources from the ocean. Once released into the marine environment, wave action, sun and wind break large plastic pieces into microplastics, which then are impossible to collect and small enough to be ingested by organisms at the bottom of the food web. As plastic surfaces readily adsorb heavy metals and other toxins, bioaccumulation and magnification are valid concerns.

Besides environmental impacts, the onetime use of styrofoam is costly: Plastic is costing cities, counties, states, & countries millions of dollars and our global economy billions. Costs are passed to the taxpayers by burdening our storm water management systems with the need for expensive best management practices and the costs of cleanups.

This is largely unnecessary as we have good alternatives: Compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. And burning compostable products come without the toxic ash or smoke that EPS foam creates in the burning process. The material for fiber containers can be grown and then made here in Hawaii, so more jobs and sustainable ones can be created.

In conclusion, the use of styrofoam presents an unnecessary environmental threat, because there are good alternatives. In addition, styrofoam is costly for the consumer and bears



potential health risks. Our State agencies should be a leader in sustainability, setting example for responsible resource use.

For these reasons, I strongly support the Styrofoam ban. Thank you for your attention.

Sincerely, Paula Moehlenkamp

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 12:00 AM  
**To:** EEPtestimony  
**Cc:** devindega@yahoo.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Devin Thomas Moody	Individual	Support	No

Comments: I am in support of this bill. Styrofoam is a toxic material that is not only bad for human health but detrimental to our natural environment. Many of us in Hawaii believe that there is a kuliana that comes with living here, to take care of our land and oceans. Our children should not be subjected to this antiquated and potentially toxic material.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 11:43 PM  
**To:** EEPtestimony  
**Cc:** birdofparadise@hawaii.rr.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Nandoskar	Individual	Support	No

Comments: I support HB1545. My name is Andrea Nandoskar. I am a resident of Waikiki and I care about protecting our aina and the health of people and animals. Banning Styrofoam is important because it leaches carcinogens which harm human health and the health of our vibrant marine life here in the islands. Sea animals and birds ingest Styrofoam thinking it is food which becomes deadly for them. The government, as one of the largest consumers of this product, has the potential to curb its use by banning it in all state agencies including public schools. I respectfully request you to please pass this bill. Mahalo for your consideration.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 11:09 PM  
**To:** EEPtestimony  
**Cc:** tika\_bean@hotmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Erica Scott	Individual	Support	No

Comments: Aloha, my name is Erica Scott and I am a Makiki resident and I strongly support this bill.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 10:12 PM  
**To:** EEPtestimony  
**Cc:** tboh18@yahoo.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ted Bohlen	Individual	Support	No

Comments: Banning styrofoam is important for the health of people because it leaches carcinogens. A ban is needed to protect marine life such as birds, turtles and fish that consume bits of styrofoam thinking it is food. A ban is needed to reduce a leading source of litter and reduce taxpayer's costs of litter control. Government agencies and schools should lead the effort to end this toxic source of trash. Please pass this bill!

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**Senate Bill 1545: Relating to Polystyrene Foam Containers**  
In Strong Support

Aloha Chairs Gabbard & Nishihara, Members of the joint committee on AE & PSM,

My name is Rachel Rounds and I am a resident of Honolulu. I am writing in full support of HB1545 to prohibit the use of polystyrene foam containers by food vendors.

I have participated in many beach clean-ups in Hawaii to remove tons and tons of plastic debris, including polystyrene, from our beautiful beaches. I have observed polystyrene trash floating in the ocean while swimming or paddling. I have seen garbage cans overflowing with polystyrene foam and other plastic trash and beach parks and other recreation areas. The Hawaii State Department of Transportation has produced a trash plan that shows styrofoam and plastic bags as the top two contributors to the waste stream. Reducing polystyrene foam use will directly support Hawaii's greenhouse gas reduction goals as stated in the Aloha + Challenge and as mandated by the US EPA. Further, material for fiber containers can be grown and then made here in Hawaii, so more jobs and sustainable ones, not jobs that are exposing workers directly to large amounts of toxic chemicals. For these reasons, and many others, I strongly support the Statewide Foam Ban. Thank you.

I can be contacted at [rachelrounds@hotmail.com](mailto:rachelrounds@hotmail.com).

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 9:58 PM  
**To:** EEPtestimony  
**Cc:** klahaela@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jennifer Kimiko LaHaela Walter	Individual	Support	No

Comments: Aloha, I am in strong support of the bill to ban styrofoam in our state agencies. As the state should be a model for what the people want out of society, it should follow that practices within state operations reflect our values. As a resident of Hawai'i, one of my highest priorities is preserving our beautiful aina and oceans for generations to come. This includes doing everything we can, collectively, to keep our oceans clean and the ecosystems healthy. Styrofoam is a threat to those ecosystems. Please pass the bill and let the state be a leader, an example for the people, as well as their voice, that we refuse to contribute to the pollution of our oceans and aina by the use of styrofoam. Mahalo for reading my testimony.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 9:47 PM  
**To:** EEPtestimony  
**Cc:** tylermcmurtry@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tyler McMurtry	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 9:29 PM  
**To:** EEPtestimony  
**Cc:** noheam23@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Nohea Marlow	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 8:47 PM  
**To:** EEPtestimony  
**Cc:** nanueiki@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Emma Yuen	Individual	Support	No

Comments:

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**HB 523** - Requires all State agencies to reasonably provide and maintain onsite collection methods at buildings and facilities under an agency's jurisdiction for the collection of recyclable materials. Appropriates funds.

[http://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=HB&billnumber=523](http://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HB&billnumber=523)

This is an essential first step to Hawaii having a zero waste commitment. This is the only respectable thing to do, especially in that we must lead the way within State agencies and buildings to honor and respect the land and the future generations. No other organism on Earth generates waste. It's our time to wake up and let go of gross, wasteful, dangerous, and a rather archaic and disgusting way of making garbage, and in the public eye no less. You are the leaders...please lead in this most fundamental of practices.

**HB1545** - Prohibits the use of polystyrene food and beverage containers in state-owned and state-run buildings and facilities beginning 1/1/2020. Requires that food and beverages be packed in compostable containers. Prohibits new contracts to purchase polystyrene food or beverage containers beginning 1/1/2018.

[http://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=HB&billnumber=1545](http://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HB&billnumber=1545)

POLYSTYRENE IS CARCINOGENIC. It was absurdly embarrassing to think that people such as former mayor Billy Kenoi, actually stated that the shift to compostable containers would wreak havoc on our food outlets. Many of us refuse to buy anything in Styrofoam. To do so is to open your cellular body to carcinogenic toxicity. Is that what Hawai'i stands for. This is a small first step to a FOAM FREE HAWAII... PLEASE PASS THIS WITH FLYING COLORS. Now, more than ever, we are looking for your courage and ecological literacy,=.

**HB1577** - Establishes a composting pilot project in DOE schools. Establishes a pilot project working group. Appropriates funds.

[http://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=HB&billnumber=1577&year=2017](http://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HB&billnumber=1577&year=2017)

YES, let's teach the children, there is no waste, just a cycling of nutrients from K through college. Please pass this unanimously. Who could be against this but someone unaware ecologically and uncaring for the future of our children's health.

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 7:17 PM  
**To:** EEPtestimony  
**Cc:** hiartrecycle@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Marsha Hee	Individual	Support	No

Comments: I fully support prohibiting the use and purchase of polystyrene food and beverage containers and requiring the use of compostable containers in state-owned and state-run buildings & facilities including all public schools as stated in HB1545. If we are to reach our Statewide goal to reduce our solid waste stream, methane & carbon emissions and litter run off into land, ocean/water sources then the State government must set an example for positive action and expectation in their own offices, buildings & facilities to lead a change in behavior and attitude for all citizens. I support funds to provide necessary supplies, signage, education, management and develop of effective strategies and infrastructure to support reusable, compostable and recyclable food and beverage service ware that visibly communicates an expectation of all residents and visitors to pay attention and make it a priority as consumers to choose and use reusable, compostable and recyclable food and beverage service ware. This action is way overdue for future generations and for the preservation and conservation of our precious natural resources. I strongly urge you to pass HB1545.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 7:10 PM  
**To:** EEPtestimony  
**Cc:** jrodwell@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Rodwell	Hawaii State Schools and Charter Schools Hawaii	Support	No

Comments: Aloha Chairs and Representatives of the House Committees on Energy & Environmental Protection and Agriculture, My name is Jennifer Rodwell and I live in lovely Palolo valley. I work as a substitute teacher in both Hawaii Sate Schools and Public Charter Schools in this area for almost 7 yrs and I strongly support this bill. I have a background in Conservation Biology and Sustainability that I bring to the kids I work with and help educate them about their own personal health as well as health of the environment. For them to see their schools and government taking an active step in this direction by banning Styrofoam would send a strong message to these children and their parents. A message that will be the legacy of this legislative session and a message that would align what they learn in school with the actions that adults and their government take on their behalf. I encourage you to accept this measure and set the example. Below is some evidence to assist you in understanding the cons to continuing to allow Styrofoam to float about in our schools, communities, city streets, and oceans. \* Department of Education (DOE) – 80% of schools use foam trays and plastic forks, ~800 of each per day per school \* Cleanup Costs & Economic Benefits Plastic is costing cities, counties, states, & countries millions of dollars and our global economy billions. Costs are passed to the taxpayers by burdening our storm water management systems with the need for expensive best management practices and the costs of cleanups. Hawaii State Department of Transportation has produced a trash plan that shows styrofoam and plastic bags as the top two contributors to the waste stream. The Natural Resource Defense Council (NRDC) created a plastic cleanup valuation study for 90+ counties in California: CA taxpayers are paying \$428 million per year to clean up plastic through storm drain management, street sweeping, and cleanups. San Diego County (with population of 1.3 equivalent to Hawaii) spends \$14 million alone on plastic cleanup United Nations Environmental Program Global Estimates are in the billions for the global cost to cleanup plastics, \$14 billion for marine plastic alone. This cost is closer to \$78 billion annually if all costs are considered, including the cost lost in fossil fuel production and loss of resources. Burden on the public According to cleanup hours recorded across Hawaii’s beach cleaning organizations and volunteer hour base rates,

we spent \$750,000 – \$1 million on beach cleanups in 2016 alone. \* Environmental Impact It is argued that styrofoam is acceptable because we can incinerate it for energy. However, this approach is not without significant impacts. According to the Hawaii DOH Clean Air Branch the Covanta H-POWER plant emits 0.15 million metric tons of carbon dioxide (a potent greenhouse gas) annually. Although touted as a “clean energy solution” for Hawaii, H-POWER only generates about 3% of Oahu’s energy needs while still emitting greenhouse gases through burning plastic. Further, for each ton of polystyrene not produced, 2.5 metric tons of carbon dioxide emissions are avoided. This directly supports Hawaii’s greenhouse gas reduction goals as stated in the Aloha + Challenge and as mandated by the US EPA. The U.S. Environmental Protection Agency’s Waste Reduction Model (WARM) report shows that burning polystyrene emits more carbon dioxide equivalent than other plastics. For each ton of polystyrene incinerated, 1.64 tons of carbon dioxide equivalent are emitted. If burned at HPower, one compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. And burning compostable products come without the toxic ash or smoke that EPS foam creates in the burning process. Fiber clamshells are also less than half the volume of EPS, so a restaurant could fit about twice as many clamshells on the same amount of shelf space or have more space for other things. The material for fiber containers can be grown and then made here in Hawaii, so more jobs and sustainable ones, not jobs that are exposing workers directly to large amounts of toxic chemicals. EPS can also be made here, but raw, toxic source chemicals need to be shipped to Hawaii. EPS is designed to be used it once, and according to the US EPA less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally. EPS Foam is composed of over 90% air, so even when properly disposed of, foam products easily fly out of trash bins and dumpsters, and they enter into the natural environment, eventually polluting our ocean and negatively impacting ocean health and threatening marine wildlife. EPS Foam also breaks apart more easily and quicker than other plastics, making it more difficult to clean up than other plastics and easier for animals to mistake as food and ingest According to the EPA Waste Reduction Model Report, 7% of plastic waste generation in US is polystyrene. Of our total plastic recovery, polystyrene makes up 0.7% of recycled plastic \* Human Health Air pollution from polystyrene Styrene is reasonably anticipated to be a human carcinogen and a confirmed animal carcinogen as reported by the National Institute of Health in their Report on Carcinogens (2011); this conclusion is also endorsed by the National Academy of Sciences (2014) When combusted, styrene produces benzaldehyde (US EPA classifies this as a hazardous substance), acetophenone (Group D carcinogen by US EPA, causes chromosomal damage on hamsters, but hasn’t been tested in humans), styrene oxide (main metabolite of styrene, which is known as carcinogenic). PS If passed this bill would contribute perfectly to HB1577 proposing the establishment of a composting pilot project in DOE schools in which school waste would be composted in which biodegradable plates would be easily and necessarily included in the composting process - close to zero waste! Mahalo nui for your time, hard work and consideration!

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 5:50 PM  
**To:** EEPtestimony  
**Cc:** rebecca.a.pang@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Rebecca Pang	Individual	Support	No

Comments:

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**Sent:** Tuesday, February 7, 2017 5:02 PM  
**To:** EEPtestimony  
**Cc:** ptgbalazs@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Balazs	Department of Education	Support	No

Comments: Aloha! I am a lifelong resident, born and raised in Hawaii Kai, and now work as a teacher at Henry J. Kaiser High School. I have been involved with environmental issues such as conservation, marine biology and environmental science my entire life. My love though, academically, has always been English Language Arts and Philosophy - two things I have the pleasure of teaching in my career. My love and passion for protecting the environment, however, has never changed and in no way takes a back seat to my career. For the past 4 years, on Saturdays and Sundays, and the occasional week night more than 600 students have engaged themselves in this idea of stewardship. They've embraced concepts foreign to them and looked for ways they could incorporate those changes in their lives and in the lives of their friends and families. They've done a miraculous job! They've had great help from the community as well. Organizations like 808 Clean-Ups, Surfrider, Sustainable Coastlines and Kokua Hawaii Foundation have been integral in helping to build their awareness. Smaller more community-focused groups like Malama Maunaloa, Livable Hawaii Kai Hui, Huli and Friends of Hanauma Bay have brought it all back home for them. With these years of service and years of action, the question has begun to appear clear: How do we change the culture of a place if the people that make up that community are unaware? This has led to - going on our third - school-wide community events like Earth Fest, and conferences with NOAA and Travel2Change who focus on community culture. The students are now pressed with an even more difficult question: How do we eliminate the problem when no one else sees it? This is a question that we here in Hawaii grew up asking ourselves. In Hawaii, we are faced with many cultural and ethical dilemmas. Similar to the ones that indigenous cultures around the world face, we must stay vigilant and true to ourselves and our roots. So why is it that a community so deeply rooted in culture and with a strength of ohana so present, and the idea of sustainability of one's community heavy on our hearts as we navigate adolescent years to adulthood, make the necessary changes to move forward in the right direction? Is it that we can't agree on a right direction? In regards to styrofoam and plastic, how can we not? No one in their right mind can deny that a problem exists. Any quick google search of styrofoam in the ocean turns up with thousands of pictures of deceased marine life due to plastic and

styrofoam. So if this is true, and we can see it and we can know it, we must make the change. Lastly, I would like to share a brief story of a clean-up. Now, I've been doing beach clean-ups for half a decade now and have contributed in cleaning up approximately 30,000 lbs of trash off our shorelines. Last year, as we were preparing to begin our weekly beach clean-up at Bellows Beach, we noticed trash had been left on the side of the road. We began picking it up, thinking we'd get to our actual planned clean-up (which was the microplastic on the beach) very shortly. We ended up spending the entire 3 hours of our service time in the parking lot, on the sand near families, around the trees and stuck (thrown) in the naupaka and morning glory. After we were done, as we usually do, I asked the students to reflect on the day's events. They shared that the majority of the trash was Starbucks cups, L&L trays, styrofoam containers and boxes, etc. They shared that they noticed much of the families were local, some had even spotted their neighbors. Now, this isn't to say locals are the only ones at fault. But it was definitely eye-opening to see the beach we all grew up surfing at filthy. The fact that we never made it to the tide line to pick up micro plastic that had floated in from see BECAUSE we were too busy picking up our own trash was disgusting. One thing is clear: We must change the culture. This takes a huge public service chapter of the State of Hawaii to engage the community in changing their practice. This entails changing the supplies, the methods, the reason - engage the community in thinking about the beautiful island and its ecosystem. Styrofoam is a KEY to starting this change. Banning styrofoam in schools will begin to engage our youth to rethink their identity as community members and invite them to understanding how their decisions make a huge impact on our island life. Thank you!

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 4:53 PM  
**To:** EEPtestimony  
**Cc:** mollymamaril@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Molly Mamaril	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 4:45 PM  
**To:** EEPtestimony  
**Cc:** rdacks@hawaii.edu  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Rachel Dacks	Individual	Support	No

Comments: Foam breaks apart more easily and quicker than other plastics, making it more difficult to clean up than other plastics and easier for animals to mistake as food and ingest. Change starts with the next generation. It is only appropriate that we do not allow styrofoam in our schools. Our kids know better, so why force this upon them?

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 3:59 PM  
**To:** EEPtestimony  
**Cc:** tiare@hapahi.org  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tiare Lawrence	Individual	Support	No

Comments: Aloha, my name is Tiare Lawrence, I reside on Maui. I testify in strong support. I was fortunate to be the project Coordinator for the People's Congress we hosted island for owns state wide and over 500 people participated we asked our participants to focus on 7 issue areas including the Environment. They were tasked with identifying what are the root and trunk causes of the systemic problems and we asked them to provide solutions. I can tell you today that every island identified single use plastic and Styrofoam as a systemic problem and every island identified banning these products as a worthy solution. In 1986 EPA declared that styrene production is the 5th largest producer of hazardous waste in the world. One of the countless luxuries Westerners enjoy is the illusion that plastic and styrofoam will just vanish or disappear. This is a good bill, please pass it!

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 3:37 PM  
**To:** EEPtestimony  
**Cc:** vellela\_vellela@hotmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ashley Watts	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 3:22 PM  
**To:** EEPtestimony  
**Cc:** kmoy@hawaii.edu  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kirsten Moy	Individual	Support	No

Comments: Hearing Date: Thursday, February 9, 2017 Hearing Time: 8:30AM Place: Conference Room 325 Committee: Energy & Environmental Protection (EEP) Aloha Chair Lee and Members of the EEP Committee, My name is Kirsten Moy and I am a resident of Oahu. I am writing in full support of HB 1545 to ban foam at state agencies and facilities. I filled the temporary position as the statewide marine debris coordinator at the Department of Land and Natural Resources and directed the state's effort to evaluate and respond to the impact of marine debris in the main Hawaiian Islands. Expandable polystyrene (EPS) foam is a product of convenience and promotes a disposal culture. It breaks down at a faster rate than other plastic products, making it harder to remove from the environment, and more likely to become microplastics. These small plastic plastic particles are consumed by marine wildlife and bioaccumulate throughout the food web, disrupting hormonal balance, digestion, and reproduction. Hawaii is a culture with a tradition of environmental reverence and respect, and this commitment to conservation should be reflected in our state agencies and facilities.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 2:56 PM  
**To:** EEPtestimony  
**Cc:** justpeachy242@yahoo.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Fawn Liebengood	Individual	Support	No

Comments: We find hundreds of pieces of styrofoam on our beaches, oceans, parks, & hikes every year. Please consider banning this dangerous material.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 12:02 PM  
**To:** EEPtestimony  
**Cc:** staceyfgray@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Stacey Gray	Individual	Support	No

Comments: Aloha Chairpersons and Members of the Committee: My name is Stacey Gray and I am a resident of Manoa. I fully support a ban on polystyrene foam containers used by all state schools and agencies. The University of Hawaii Stan Sherrif Center has already made the switch over to a fiber and paper products for sporting events and it's great. A move away from styrofoam is what's best for Hawaii's environment and now is the time to make that change. Residents have been educated about the harmful impacts of styrofoam disposable food containers on our environment and how they never decompose but continue to break down into microplastics. There are those that my say "oh but they will be burned and turned into energy" and to that argument I would argue that the fiber options provide more BTUs and are far less hazardous to wildlife if they get into the environment. In addition the plants used to create the fiber alternative can be grown right here on Oahu and would create more jobs. Mahalo for your time and consideration, Stacey Gray

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Jesse B Owens, PHD

1350 Ala Moana Blvd. Apt 1209

Honolulu HI 96814

Phone 808 640 5010

Dear legislature,

I am writing to support SB1545 - Foam ban for all state agencies and events. When I went to school in Hawaii we used metal forks and trays, we did not cause tons of un-needed waste by throwing away all of the eating utensils and plates. I'm not sure when this change occurred but this is a terrible example for our children. This is un-needed waste and need to stop immediately. Also, the argument that it is a money saver has been debunked. Let's set a good example about being green and support SB1545.

-Jesse B Owens PHD

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 11:15 AM  
**To:** EEPtestimony  
**Cc:** kalikoamona@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kaliko Amona	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 9:19 AM  
**To:** EEPtestimony  
**Cc:** hannah.jones@chester.ac.uk  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
HAnnah	Individual	Support	No

Comments: I support the ban on foam.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 8:33 AM  
**To:** EEPtestimony  
**Cc:** abalsley@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Amanda	Individual	Support	No

Comments: This would be something the people can feel proud of! We need government to help people do the right thing and make the right environmental choices by approving this measure!

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 8:33 AM  
**To:** EEPtestimony  
**Cc:** cbarbire@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
cynthia barbire	Individual	Support	No

Comments: I support HB1545! All states should follow Hawaii's lead!

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SUPPORT FOR HB 1545 RELATING TO POLYSTYRENE FOAM CONTAINERS  
February 8, 2017

Dear Chair and Committee Members,

I am in strong support of HB 1545, prohibiting the use of polystyrene foam containers in State-owned and State-run facilities. Our beaches are littered with marine debris and it only continues to get worse. Every Tuesday morning I walk Kailua beach with my mom and I have witnessed the tide line that was once comprised of bits of shells and corals turn into tiny bits of plastic. Styrofoam is only part of the problem of marine pollution but passing this bill would lessen the amount of non-degradable trash we are leaving behind for future generations. I would like my children to walk on a beach with sand and not plastic. It needs to start here with this bill. I understand this may increase costs for businesses but I'm willing as a consumer to take on this cost. There are plenty of small businesses that make the commitment to reduce their use of plastics and Styrofoam and they are doing just fine. It is a small adjustment for consumers and businesses to make that would have a positive impact on the future of Hawaii's marine environment.

Thank you  
Chelsea Arnott  
Kahaluu Resident

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, February 7, 2017 1:39 AM  
**To:** EEPtestimony  
**Cc:** ladyvonblack@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/7/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Cassandra Pace	Individual	Support	No

Comments:

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 6, 2017 8:09 PM  
**To:** EEPtestimony  
**Cc:** pulermq@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/6/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
RuthMarie Quirk	Individual	Support	No

Comments:

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## HOUSE BILL 1545: Relating to Polystyrene Foam Containers

In Strong Support

Hearing Date: Thursday, February 9, 2017

Hearing Time: 8:30 AM

Place: Conference Room 325

Committee: EEP: House Committee on Energy and Environmental Protection

Aloha Chairs Lee and Lowen and Members committee on EEM,

My name is Clarice Schafer and I am a resident of Moiliili, Honolulu, HI. I am writing in full support of HB 1545 to prohibit the use of polystyrene foam containers by state-owned and state-run buildings. This includes the Department of Education, where 80% of schools use foam to serve school lunches with 800+ pieces of foam being used per day, per school. Our State agencies, especially our schools, should be a leader in sustainability, setting example for responsible resource use.

Although many people have heard that Styrofoam is detrimental to the planet, few understand how Styrofoam harms the environment and our health. Over the years, information about harmful effects of Styrofoam/EPS on people's health and the environment have been accumulating. Here are some reasons why you should support SB1109:

### **Themes:**

#### Cleanup Costs & Economic Benefits

- Plastic is costing cities, counties, states, & countries millions of dollars and our global economy billions. Costs are passed to the taxpayers by burdening our storm water management systems with the need for expensive best management practices and the costs of cleanups.
- Hawaii State Department of Transportation has produced a trash plan that shows styrofoam and plastic bags as the top two contributors to the waste stream.<sup>1</sup>
- The Natural Resource Defense Council (NRDC) created a plastic cleanup valuation study for 90+ counties in California:<sup>2</sup>
  - CA taxpayers are paying \$428 million per year to clean up plastic through storm drain management, street sweeping, and cleanups.
  - San Diego County (with population of 1.3 equivalent to Hawaii) spends \$14 million alone on plastic cleanup

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<sup>1</sup> [http://www.stormwaterhawaii.com/swmp\\_wp/wp-content/uploads/2014/10/Trash-Reduction-Plan\\_FINAL-10-18-16.pdf](http://www.stormwaterhawaii.com/swmp_wp/wp-content/uploads/2014/10/Trash-Reduction-Plan_FINAL-10-18-16.pdf)

<sup>2</sup> <https://www.nrdc.org/sites/default/files/ca-pollution-in-waterways-IB.pdf>

- United Nations Environmental Program Global Estimates are in the billions for the global cost to cleanup plastics, \$14 billion for marine plastic alone.<sup>3</sup>
  - This cost is closer to \$78 billion annually if all costs are considered, including the cost lost in fossil fuel production and loss of resources.
- Burden on the public
  - According to cleanup hours recorded across Hawaii's beach cleaning organizations and volunteer hour base rates, we spent \$750,000 - \$1 million on beach cleanups in 2016 alone.

### Environmental Impact

- It is argued that styrofoam is acceptable because we can incinerate it for energy. However, this approach is not without significant impacts. According to the Hawaii DOH Clean Air Branch the Covanta H-POWER plant emits 0.15 million metric tons of carbon dioxide<sup>4</sup> (a potent greenhouse gas) annually. Although touted as a "clean energy solution" for Hawaii, H-POWER only generates about 3% of Oahu's energy needs<sup>5</sup> while still emitting greenhouse gases through burning plastic.
- Further, for each ton of polystyrene not produced, 2.5 metric tons of carbon dioxide emissions are avoided. This directly supports Hawaii's greenhouse gas reduction goals as stated in the Aloha + Challenge and as mandated by the US EPA.<sup>6</sup>
- The U.S. Environmental Protection Agency's Waste Reduction Model (WARM) report shows that burning polystyrene emits more carbon dioxide equivalent than other plastics. For each ton of polystyrene incinerated, 1.64 tons of carbon dioxide equivalent are emitted.
- If burned at HPower, one compostable clamshell burns 1.76 times greater energy compared to one EPS Foam clamshell of the same size. And burning compostable products come without the toxic ash or smoke that EPS foam creates in the burning process.
- Fiber clamshells are also less than half the volume of EPS, so a restaurant could fit about twice as many clamshells on the same amount of shelf space or have more space for other things.
- The material for fiber containers can be grown and then made here in Hawaii, so more jobs and sustainable ones, not jobs that are exposing workers directly to large amounts of toxic chemicals. EPS can also be made here, but raw, toxic source chemicals need to be shipped to Hawaii.

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<sup>3</sup> [www.unep.org/pdf/ValuingPlastic/](http://www.unep.org/pdf/ValuingPlastic/)

<sup>4</sup> <http://energy.hawaii.gov/wp-content/uploads/2011/10/ghg-inventory-20081.pdf>

<sup>5</sup> [www.islandpulse.org](http://www.islandpulse.org)

<sup>6</sup> <https://www3.epa.gov/epawaste/conservation/tools/warm/pdfs/Plastics.pdf>

- EPS is designed to be used it once, and according to the US EPA less than 1% of foam is recycled nationally. 0% of EPS Foam is recycled locally.
- EPS Foam is composed of over 90% air, so even when properly disposed of, foam products easily fly out of trash bins and dumpsters, and they enter into the natural environment, eventually polluting our ocean and negatively impacting ocean health and threatening marine wildlife.
- EPS Foam also breaks apart more easily and quicker than other plastics, making it more difficult to clean up than other plastics and easier for animals to mistake as food and ingest
- According to the EPA Waste Reduction Model Report, 7% of plastic waste generation in US is polystyrene. Of our total plastic recovery, polystyrene makes up 0.7% of recycled plastic

### Human Health

- Air pollution from polystyrene
  - Styrene is reasonably anticipated to be a human carcinogen and a confirmed animal carcinogen as reported by the National Institute of Health in their Report on Carcinogens (2011); this conclusion is also endorsed by the National Academy of Sciences (2014)<sup>7</sup>
  - When combusted, styrene produces benzaldehyde (US EPA classifies this as a hazardous substance), acetophenone (Group D carcinogen by US EPA, causes chromosomal damage on hamsters, but hasn't been tested in humans), styrene oxide (main metabolite of styrene, which is known as carcinogenic).

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<sup>7</sup> <https://www.niehs.nih.gov/health/topics/agents/styrene/index.cfm>

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 11:46 AM  
**To:** EEPtestimony  
**Cc:** karenrosen@hawaii.rr.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Karen Rosen	Individual	Comments Only	No

Comments: Please support this bill which prohibits the use of polystyrene food and beverage containers in state-owned and state-run buildings and facilities beginning 1/1/2020. Requires that food and beverages be packed in compostable containers. Prohibits new contracts to purchase polystyrene food or beverage containers beginning 1/1/2018. This is an important step in protecting our environment!

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 10:56 AM  
**To:** EEPtestimony  
**Cc:** writetosheila@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Sheila Sarhangi	Individual	Support	No

Comments: My name is Sheila Sarhangi, a resident of Oahu, and I am in strong support of this measure. As an island state, our marine life is a significant driver for tourism. As residents, our health and well-being relies on the sustainability of the ocean, for food, recreation, and solace. To protect our ocean and its inhabitants, one small step is to prohibit the use of Polystyrene, especially in state buildings. San Francisco was able to ban the material outright as part of their "zero waste" goal. Surely Hawaii can also be a leader in waste management by banning the substance at the government level. Aloha, Sheila

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Aloha members of the committee,

I am writing in full support of HB1545 to prohibit the use of polystyrene food containers in state-owned and state-run buildings and facilities of Hawaii. As we all know by now, plastic pollution is a huge problem here on Oahu and across the state. Understanding that 80% of the trash that is in the ocean originated on-land means that we must evaluate our behaviors when it comes to what we buy and what we dispose of. Trash is merely out of sight out of mind once it leaves our hands/homes/schools etc. The journey this trash takes has only begun, before a large portion ends up on our coastlines and beaches, it is not really 'gone'. One of the main contributors to the amount of trash we produce are the single use plastics. These plastics are intended to be used only one time before being thrown out, yet they are made from materials meant to last forever. Polystyrene containers, as a single use plastic along with other single use plastics pollute our environment and can harm its wildlife.

The safety of polystyrene for our food should also be called into question. Especially in cases where very hot foods are placed in polystyrene, harmful chemicals leach into the food. These trace amounts of toxins could very well have cumulative effects and by allowing them to be used for food containers and packaging, we are also subjecting young kids to these very powerful toxins.

In summary I ask that you please consider this and the other concerns addressed at the hearings to prohibit polystyrene food containers in state-owned and state-run buildings and facilities across the state.

Thank you for your time,  
Adrianna Ortiz, resident at 3303 Hooper Place, Honolulu

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 6, 2017 8:14 PM  
**To:** EEPtestimony  
**Cc:** renaissancestar27@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/6/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Sarah	Individual	Support	No

Comments: Mahalo for banning polystyrene/styrofoam. This ban is long overdue, we are looking forward to more bills that support our sacred natural resources.

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**Sent:** Wednesday, February 8, 2017 5:56 PM  
**To:** EEPtestimony  
**Cc:** conversationocean@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Yasmin	Conversation Ocean	Support	No

Comments: My name is Yasmin, co-founder of Conversation Ocean, a marine conservation organization. I am writing in full support of HB 1545 to prohibit the use of polystyrene foam containers. I have spent countless hours picking up tiny tiny bits of these terrible foam containers from beautiful beaches all over the world. This stuff is terrible for our planet. It ends up on our beaches, in our oceans, and in the stomachs of wildlife (and likely us as well) who unknowingly consume it. Styrofoam and plastic bags are the top two contributors to the waste stream according to the Hawaii State Department of Transportation. Hawaii's beach cleaning organizations have spent \$750k-\$1 million on beach cleanups in 2016 alone. Prohibiting the use of polystyrene containers is not only environmentally a smart move, but economically as well. I hope you make the right decision. The actions we take now determine our future.

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**Sent:** Wednesday, February 8, 2017 4:05 PM  
**To:** EEPtestimony  
**Cc:** dmitts@kohalacenter.org  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Donna Mitts	Individual	Support	No

Comments:

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**LATE**

**Simone Schmid**  
**Doctor of Public Health Candidate, University of Hawaii at Manoa**

HB1545 – RELATING TO ENVIRONMENTAL PROTECTION

Hearing date: February 9, 2017

Room: 325

Dear Chair Lee, Vice Chair Lowen, and Members of the Committee:

My name is Simone Schmid, I am a Doctor of Public Health candidate at the University of Hawaii at Manoa submitting this testimony on HB1545.

I support the intent of this bill. However, the health and environmental threats presented by expanded polystyrene foam are significant enough that the prohibitions established within this bill should be extended to include food vendors rather than limiting it to government agencies or departments. As a Doctor of Public Health candidate, I am concerned about the health impact caused by expanded polystyrene foam usage. Generally speaking, the public health is protected through reduced air, ground, and water pollution. Expanded polystyrene foam is partially made synthetic chemicals, some of which as carcinogens, which may leach into the environment and ultimately our bodies if in contact with hot, greasy or acidic food. Polystyrene does not biodegrade. Broken down into small pieces, animals, such as turtles and fish seem to mistake it for food, which can kill them. Not only can they not digest it, but they can also contaminate water. Each of these points should be considered along with the long-term health care costs that can arise from contaminated water and food.

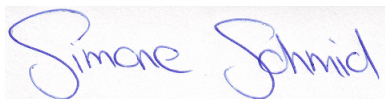
Expanded polystyrene foam still being allowed makes the public think it is safe to use. The government has a responsibility to keep Hawaii's people safe. There are easier and safer solutions for how to live without expanded polystyrene foam that should take priority in order to protect the environment and public health.

Due to these pressing issues, I recommend the measure be amended to include food vendors. While any prohibition is a good start, I believe that the state should prioritize a comprehensive prohibition to address the emergency of the matter.

If the Committee is not interested in expanding the prohibition, I suggest an amendment to clarify the potential confusion of the word "department." As found on page 3, line 18 of the bill, "department" is defined as only referring to the department of health. However, the word department is used to generally describe state departments on page 4, lines 16 and 21, and page 5, line 4. This can be addressed by simply deleting the definition of department and adding "of health" to department on page 5, line 7.

In closing, I strongly support the intent of this bill, ask for expanded prohibition, and respectfully request the Committee's favorable consideration.

Thank you for the opportunity to testify.



Simone Schmid, Dr.Ph (c), MA, MPH, B.Sc.

**LATE**

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, February 9, 2017 6:38 AM  
**To:** EEPtestimony  
**Cc:** b2bruso@yahoo.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/9/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Natalie Bruso	Individual	Support	No

Comments: The State is now aware of the negative effects that polystyrene food containers have on the environmental. The State is also aware that eating or drinking food from a polystyrene container causes a person to swallow compounds that can interrupt normal hormone function, causing serious health problems. For The State to continue to buy & distribute polystyrene food & drink containers to children in school or at any State run facility, would in blatant disregard for the health of the children & patrons consuming the food & beverages. This would show that The State would rather risk the health of school children & other Hawai'i residents than make a positive change for the health of Hawaii's people & environment.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, February 9, 2017 6:28 AM  
**To:** EEPtestimony  
**Cc:** mariyakai@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/9/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mariya Gold	Individual	Support	No

Comments: I support this bill.

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**LATE**

Lindsey Hoell, CCP  
3316 Hinano St.  
Honolulu, HI 96815  
415-608-4110

To Whom in May Concern,

I wanted to submit testimony in strong support for HB1545 which would ban polystyrene foam in government agencies.

Around 2 years ago, I was recruited by Queens Hospital's cardiac surgery program from UCSF, where I was currently working. I was so excited by the opportunity to join the welcoming healthcare community on Oahu. Queens is such wonderful facility with such a strong message of patient service and protection. Unfortunately, I soon found that one piece of the global healthcare picture was missing: the care of what we are ingesting and that impact on the environment. Queens serves all lunches on Styrofoam, which is a likely carcinogen, per the National Institute of Environmental Health services (<https://www.niehs.nih.gov/>).

Although this ban would not directly impact Queens, the same logic follows. Why would a government agency, which has the purpose to protect us, serve anything on a material that could potentially harm us, and which without a doubt harms our marine life? The answer: it shouldn't.

There is no throwing this "away." "Away" blows out into our oceans. "Away" litters our freeways and costs taxpayers millions of dollars in cleanup. "Away" pollutes our fresh water sources.

We have one planet. No argument for a product that is used so heavily as a single-use polluter can dampen the argument that every piece of Styrofoam ever created is still on the planet. It's polluting our oceans and killing our fish. It's littering our freeways. And we are ingesting it, and it's poisoning our bodies.

Let's protect the beautiful people and marine life in Hawaii by banning Styrofoam in government agencies. The government needs to take a stance in protecting its constituents.

Mahalo!  
Lindsey

**LATE**

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, February 9, 2017 4:59 AM  
**To:** EEPtestimony  
**Cc:** kelly.kristen13@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/9/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kristen Kelly	Individual	Support	No

Comments: I highly support this bill especially for schools. We live in a very windy ocean state. These containers will get into our ecosystems around Hawaii even if disposed of properly. We have known Styrofoam is bad for SO many years now! It is about time. Compostable containers are safe for the environment, compress to create less trash and for H-power burn at a higher energy rate per lb. Thank you for seeing this bill through!

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**Sent:** Wednesday, February 8, 2017 9:16 PM  
**To:** EEPtestimony  
**Cc:** ktmenten@gmail.com  
**Subject:** \*Submitted testimony for HB1545 on Feb 9, 2017 08:30AM\*

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Katie	Individual	Support	No

Comments:

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**Sent:** Wednesday, February 8, 2017 8:55 PM  
**To:** EEPtestimony  
**Cc:** p.lahaela.walter@posteo.org  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Philipp LaHaela Walter	Individual	Support	No

Comments: Dear Chair, Vice Chair, and Committee Members, In a time in which highly artificial and processed materials such as plastics and styrofoam are causing an environmental catastrophe that is very visible in public urban spaces, in the ocean and its wildlife surrounding our islands it is indispensable to take drastic steps towards change. This measure could be an important, symbolic step demonstrating that a world without styrofoam is possible. I highly urge you to support this bill. Thank you! Philipp LaHaela Walter

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Wednesday, February 8, 2017 8:46 PM  
**To:** EEPtestimony  
**Cc:** ryan@earthfriends.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
ryan christopher	Individual	Support	No

Comments: Styrofoam is used once hen it degrades ever so slowly in our environment making a mess. My only issue with this bill is that it would not go into effect until 1-1-2020. Why so long? Our kids deserve a clean place to play and grow. There are compostable options to replace styrofoam, this is an easy call. Please do the right thing for our children. Thanks

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**Sent:** Wednesday, February 8, 2017 6:04 PM  
**To:** EEPtestimony  
**Cc:** zsrparlee@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/8/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Zachary Parlee	Individual	Support	No

Comments: I support HB1545 because it is clear we cannot keep using styrofoam as a container. It not only visually pollutes our landscape and ocean, but it also causes health issues for marine life. Switching over to compostable containers is the right thing to do, and the earlier we start the better.

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To Whom It May Concern:

I am writing this testimony in support of banning foam from state agencies and facilities.

As a Sustainability Coordinator of an Oahu elementary school for the academic year of 2015-2016 (at Sunset Beach Elementary School) I worked with students to quantify trash produced during our lunch time. Our school opted to use cardboard trays, which we were very thankful for so that we could return to the garden for mulching purposes and composting. However, with 350 students and approximately 200 eating lunch each day, that number of trays really adds up both in weight, volume, and cost. Had we been using foam, it would have been an incredible amount of negative environmental impact considering that foam does not ever truly break down when it is "thrown away." Neighboring schools did use foam as do many other schools on island.

Our school's lunch data is no different than the rest of the island. The majority of students use single use trays every day that end up in the trash. With compostable trays, our school was at least able to use them in the garden, or they could have been used in many other ways by outside organizations. Ideally, schools would not even use these cardboard trays but rather reusable trays and have a washing system for them to reduce all waste. Even the cardboard trays are not the best option as they cost money and create waste.

I support the ban of foam in hopes that it will improve the environmental condition of our island.

Mahalo,

Hannah Hubanks

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, February 9, 2017 9:03 AM  
**To:** EEPtestimony  
**Cc:** caraltroy@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/9/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Cara Short	Individual	Support	No

Comments: I STRONGLY support this bill and hope that we can work with vendors to use compostable materials.

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**LATE**

Feb. 9, 2017

**Strong Support for HB1545: Relating to Environmental Protection**

**Committee: Energy and Environmental Protection (EEP).**

**Hearing: Feb. 9<sup>th</sup>, 8:30am, Rm. 325**

Dear Chair Lee, Vice Chair Lowen and Members of the EEP Committee,

As the Hawaii Manager of the Surfrider Foundation, I am writing in strong support of HB1545, the bill to ban the use of polystyrene food containers in state-owned buildings and facilities. With five chapters and thousands of Surfrider members in Hawaii, we are committed to reducing the litter and environmental hazards of single-use plastics like styrofoam as part of our popular Rise Above Plastics campaign.

Along with being toxic, polystyrene food products are some of the most littered items in our Islands and the least recycled form of plastic. They are costly too. The recent Hawaii Department of Transportation (DOT) Trash Reduction Plan shows that styrofoam and plastic bags are the top two contributors to our waste stream, and it costs the state millions of dollars to clean them up.

Some opponents will say polystyrene foam containers are recyclable, but less than 1% is ever recycled. They will also say that it's a "litter problem," but the plastics industry has been using this tactic and blaming the public for decades without producing products that are not recyclable. An EPS foam ban was implemented in San Francisco, and there was a 30% decrease in EPS litter within one year (San Francisco Street Litter Re-Audit, 2008). Over 100 cities and counties across the country have enacted EPS foam bans. For an extensive list see: <http://www.surfrider.org/pages/polystyrene-ordinances>.

They will also say that banning polystyrene food containers will hurt small businesses, but there are many restaurants that have dropped these products and are doing just fine. In fact, the new Ocean Friendly Restaurants Hawaii program has certified more than 115 restaurants that are foam-free since Earth Day 2016!

During our monthly beach cleanups around the state, EPS foam products are among the top items we find every time. In fact, as part of International Coastal Cleanup Day, 17,383 cups, plates and pieces of EPS foam were removed from Hawaii's beaches in a single day on Sat., Sept. 19<sup>th</sup>, 2015! That's why we need this bill, which would help reduce these litter problems and environmental issues by requiring restaurants and food service vendors to stop using toxic EPS foam containers.

We embrace a policy of "1, 2, C," meaning products should be recyclable #1 & #2 plastics or compostable, which would help with the state's waste reduction goals. There are many compostable or non-toxic plastic alternatives that can be recycled. This bill provides vendors and restaurants enough time to use their remaining inventory and transition to safer products, which hundreds of restaurants have already done without any problems. Although foam products may be cheaper to buy, they have a hidden cost that counties and citizens have to pay to clean them up.

Although the FDA approved EPS foam products in 1958, the science since then has shown that these are toxic products. Here are some top reasons why EPS foam food service products are dangerous and wasteful:



1. EPS foam is a toxic form of plastic made from non-renewable fossil fuels and synthetic chemicals like styrene that leach out over time, especially in contact with hot, greasy or acidic food.
2. According to the National Institutes of Health (NIH), styrene is a dangerous carcinogen and neurotoxin that can lead to cancer, lymphoma and leukemia. The EPA says 100% of humans have styrene in their fat tissues.
3. Because EPS foam food service products are more than 90% air, they break apart easily and are often blown into our coastal areas and out to sea, where they are listed as one of the top 10 items collected at beach cleanups.
4. EPS foam never biodegrades but only breaks into smaller micro-plastics. These pieces act like sponges for toxic chemicals in the ocean and are consumed by marine creatures who mistake them for food. More than 180 marine species are known to eat plastics, including endangered species like sea turtles and albatross.
5. Hawaii has one of the highest per capita rates of take-out food in the country, and many food containers are made of EPS foam products whose toxic chemicals threaten the health of humans and the environment.
6. Most of these products are hauled to H-Power, where they are incinerated. But compostable products produce almost twice the energy and burn much cleaner. When these polystyrene products are littered on the land or blown out to sea, they never degrade but begin to leach toxic chemicals like styrene, a known carcinogen.

Along with the facts above, there have been many scientific studies showing the harmful effects of polystyrene foam. That is why we don't want to delay taking action to reduce foam use and litter. In 2008, the Hawaii Senate passed SR78 SD1 to create a voluntary compliance program to switch from foam products to healthier alternatives, but nothing was ever done to move this forward. And in 2014, the Honolulu City Council passed Resolution 14-175, to study the effects of foam and other single-use products, but the study was never done.

The amount of testimony in both resolutions was overwhelmingly in favor of bills to reduce polystyrene food containers. But those legislative bodies seemed to have been swayed by the exaggerated claims of lobbyists for local foam producers and distributors. The irony is that these same companies already carry and distribute more eco-friendly, recyclable and compostable products because they see the writing on the wall. Scientific research and public sentiment have created a compelling case against these foam products. More than 100 cities and counties have already enacted successful foam bans, and so have many schools. Because students are generally more environmentally aware, they don't want their food served on these toxic foam products in their schools.

Hawaii has been an environmental leader in moving forward policies to ban plastic bags and create smoke-free parks & beaches. Now, we ask you to assert that same leadership on this issue. Because Polystyrene food service products are toxic to the environment and human health, their use should be banned. There are many available and affordable alternatives that are non-toxic, biodegradable and pose no threats to the environment or human health and will cost the state and the counties less to clean up.

Protecting our land and people should be our top priority, not allowing a few companies to profit from outmoded products that harm the environment and our wildlife. If we can't ban polystyrene foodware outright, our we should at least set an example by not allowing these products in our government agencies and buildings. Mahalo for your time and leadership on this issue and please feel free to contact me if you have any questions.

Sincerely,

Stuart Coleman

Stuart H. Coleman, Hawaii Manager

**LATE**

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Thursday, February 9, 2017 7:13 AM  
**To:** EEPtestimony  
**Cc:** Milisenj@gmail.com  
**Subject:** Submitted testimony for HB1545 on Feb 9, 2017 08:30AM

**HB1545**

Submitted on: 2/9/2017

Testimony for EEP on Feb 9, 2017 08:30AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jeff Milisen	Individual	Support	No

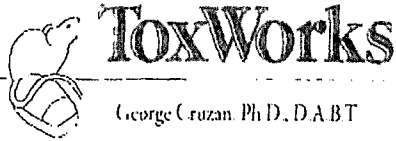
Comments: My name is Jeff Milisen and I am writing in support of a ban on polystyrene food containers. I worked with NOAA's marine debris cleanup team for two seasons. We live in the middle of the Pacific, and as such, our trash catches ocean currents to travel throughout the ocean. Polystyrene is one of the most abundant and persistent forms of trash that humans generate. Trash, and especially plastic trash, doesn't just disappear when you throw it away. It must be processed, transported, and stored. Eventually, much of it will be buried in landfills. Hundreds of years from today, someone may dig up one of those landfills and the plastic waste will still be there. but not if we stop using it in the first place. Please help make this ban on polystyrene food containers a reality.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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**LATE**



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June 9, 2014

**Written Testimony to City Council – City and County of Honolulu, Honolulu,  
Hawaii June 15, 2014**

**Subject: Proposed Bill 40 (2014) for An Ordinance Relating To Disposable Food  
Containers - Safety of Polystyrene Foam Foodservice**

I am Dr. George Cruzan. I have been a professional toxicologist for more than 35 years and have been certified in toxicology by the American Board of Toxicology for more than 34 years. Study of the health and environmental effects of styrene and research to further understand any effects has been a main focus of my career since 1990. I am here to tell the City that the assertions that there are any health concerns about styrene in polystyrene foodservice products, which have been used safely for 50 years and sanctioned by the US FDA, are unfounded. This is simply not true from any scientific standpoint.

Styrene was classified in 2011 as “Reasonably anticipated to be a human carcinogen” in the 12<sup>th</sup> edition of the Report on Carcinogens by the US Department of Health and Human Services (HHS). That evaluation is disputed by many and is currently under review by the National Academy of Sciences. However, foodservice products are not made of styrene, which is a liquid and would not contain any food. Foodservice products may be made of polystyrene, large chains of styrene molecules chemically bonded together.

Based on the science and testing, here’s what government agencies and health experts do say about the safety of polystyrene foam products:

- a. **NTP** - Dr. Linda Birnbaum, Ph.D., Director, U.S. National Toxicology Program was quoted widely in Associated Press reports in June 2011. “Let me put your mind at ease right away about polystyrene foam\*” ... [the levels of styrene from polystyrene containers] “are hundreds if not thousands of times lower than have

occurred in the occupational setting...In finished products, certainly styrene is not an issue." *Source: news reports of Associated Press story, June 2011*

- b. **Harvard Center for Risk Analysis** - A twelve-member panel of international experts selected by the Harvard Center for Risk Analysis reported in 2002 that the very low levels of styrene present in foods – whether naturally occurring or from polystyrene foodservice products – does not represent a concern to human health.
- c. **American Cancer Society - Otis Brawley, Chief Medical Officer, American Cancer Society** -Bloomberg News in June 2011 reported that Brawley said, "Consumers don't need to worry about polystyrene cups and food containers..." Quote: "I see no problems with polystyrene foam\* cups." *Source: Bloomberg News, June 2011*
- d. **U.S. Food & Drug Administration** - Based on scientific tests over five decades, FDA has determined that polystyrene is safe for use in foodservice products. Polystyrene meets the FDA's stringent standards for use in packaging both to store and to serve food.

<http://www.plasticfoodservicefacts.com/main/Safety/National-Toxicology-Program>

There is a small amount of unreacted styrene within polystyrene; some of this may migrate into food in the container. The results of a 2013 study show that the maximum amount of styrene that could migrate from polystyrene food-contact packaging is calculated to be 6.6 micrograms (about 1 millionth of a teaspoon) per person per day. Several foods (e.g., coffee, cinnamon) naturally contain styrene; the average consumption of styrene from natural food sources is about 9 micrograms/day. The FDA's acceptable daily intake value of styrene is calculated to be 90,000 micrograms per person per day. This demonstrates a safety factor of more than four orders of magnitude (10,000 times).

You get 3000 more times exposure of styrene from cinnamon than from a polystyrene foam cup. Whether naturally occurring in foods and beverages such as strawberries, coffee beans or cinnamon, or produced synthetically, most people encounter styrene as a part of their daily lives, though in small amounts. Scientific studies have shown that the small amounts of styrene consumers may be exposed to are not harmful – styrene does not stay in the body for long and is rapidly metabolized or excreted.

In conclusion, no government agencies consider polystyrene to be a carcinogen, nor to pose any health risk.



George Cruzan, PhD, DABT