

Proposal to introduce a bag charge to Bermuda

Action by the government to reduce the waste of single-use grocery bags will make a positive contribution to Bermuda's economy, send a positive message to our visitors, and have a positive impact on our local and global environment.

Summary:

Due to overwhelming evidence that demonstrates single use grocery bags have no positive impacts for Bermuda, Greenrock and the Bermuda Marine Debris Taskforce* (BMDT) have sponsored a campaign to charge for single-use grocery bags.

Single use grocery bags are a drain on the economy resulting in millions of dollars a year sent out of Bermuda for the sake of a few minutes of convenience. Single-use grocery bags are a source of litter on our Railway Trails, roads and beaches, and cost significant resources (both dollars and volunteer hours) to clean up. Single-use bags are a drain on our environmental resources: their manufacture, transport and disposal uses fossil fuels and results in significant and unnecessary greenhouse gas emissions: this contributes to global climate change, which is a threat to Bermuda.

There is a considerable amount of public and commercial support for action to reduce the use of single-use grocery bags. Sound evidence suggests education is not enough to change behavior. Furthermore, charging for bags is well tolerated by the public and dramatically reduces the demand for single-use bags.



Hurricane Igor debris including plastic bags.
Photograph courtesy of KBB.

* The BMDT is a forum to address the problem of marine plastic pollution in Bermuda. The members are environmental departments, NGOs and interested individuals who meet to discuss issues related to this problem and to organize research on beach plastic.



Economic costs of single-use bags

Direct economic cost: Importing single-use paper and plastic bags costs Bermuda retailers millions of dollars each year. We have spoken with the grocery stores to obtain their data: just two of the major retailers together spend more than \$500,000 per year on single-use bags. This is only a fraction of the total number of single-use paper and plastic bags imported each year to Bermuda.

According to the Department of Statistics from January to December 2012 Bermuda imported thin film plastic and paper bags to the value of \$995,505 (Customs tariff numbers: 3923.210: sacks and bags of plastic polymers, 4819.400: sacks and bags of paper (less than 40cm)) (*Source, private communication jbbean@gov.bm*). Retailers would then have spent an additional \$221,500 on duty to import these bags, resulting in a total cost to retailers of more than \$1,200,000, a cost that is passed directly on to Bermuda residents.



Bags and other debris in the Pembroke Canal.
Ibid

Cost of litter clean-up: Bermuda Government clean-up crews as well as volunteers through organizations such as KBB spend a significant amount of time each year cleaning up Bermuda’s streets and public areas. The Ocean Conservancy (*Ocean Conservancy, The Ocean Trash Index, 2012*) found that single-use plastic bags are the most commonly collected item on beaches after cigarettes and plastic bottles, accounting for 10 percent of total debris items collected worldwide. Reduction in the use of single-use grocery bags will result in a decline in litter clean-up costs for Bermuda.

Impact on consumers: Single-use bags harm all consumers, especially the poor, because bag purchase costs are embedded in the prices of food, and because all Bermuda residents ultimately fund litter clean-up costs. According to store owners, grocery stores currently embed 4 to 10 cents per bag in food prices. Thus, by eliminating the cost to retailers of providing bags free of charge, Bermuda residents will ultimately save money. For example in LA County it was estimated that the savings to

consumers of single-use plastic or paper bags at the grocery store would be \$18 to \$30 per person per year (*Plastic Bag Amicus Brief, CSC Atlantic*). Reusable bags are readily available to consumers for an average cost of \$1 each at grocery stores or free at many public events. Recently, a very successful initiative to make and give away grocery bags from old t-shirts was sponsored by Greenrock at the Centre on Philanthropy Family Day.

Impact on Tourism: According to a recent report in California: “all economic activities relating to coastal recreation are affected by the quality of the environment” (*Kildow & Colgan, National Ocean Economics Program, California’s Ocean Economy: A report to*



the resources agency, state of California (2005)). Tourism is a vital part of the Bermuda Economy so plastic bags ending up as trash on our beaches will have a negative impact on our tourism product. Conversely, if Bermuda passes a law to reduce resource use and the harmful effects of plastic bags, this will raise Bermuda's profile as an 'eco-friendly' destination.



Debris including plastic bags at Shark Hole. *Ibid*

Environmental costs of single-use bags

Bag facts:

Over 1 trillion plastic bags are used every year worldwide (*source: Reuseit.com*), and they are the third most common type of ocean refuse after cigarette butts and plastic bottles (*Ocean Conservancy 2012*). From interviewing store managers, we estimate that at least 10 million paper and plastic bags are used in Bermuda each year; given Bermuda's geography, there is a high chance that any bags discarded as litter will eventually reach the ocean and beaches.

'Biodegradable' plastic bags, which contain additives to help them break down into confetti-size pieces in a controlled composting environment, are not a viable solution for Bermuda. Firstly, these bags do not break down in the ocean or other sources of water. Second, Marsh Folly, the one composting facility on the island, only accepts horticultural waste.

Paper bags possess their own set of environmental problems. Because recycled paper is not as strong as paper made from virgin tree pulp, these bags are rarely recycled. This means new trees are cut for most new bags. Paper bag production is a dirty business contributing to air and water pollution. Paper bags are heavier and therefore use more fossil fuels to ship to Bermuda and tend to degrade more in storage here.





Bermuda hawksbill turtle found with 2,825 plastic fragments in its gut.
Photograph courtesy of J Gray. Bermuda Turtle Project.

Impact on human and ocean health: Plastic bags remain toxic even after they break down – polyethylene in the ocean goes through a process called photo-degradation resulting in tiny particles of plastic. These particles selectively absorb persistent organic pollutants (such as PCBs and DDT) available at low concentrations in the ocean (5gyres.org/see_global_research). Plastic marine debris affects at least 267 species worldwide, including 86 percent of all sea turtle species, 44 percent of all sea bird species, and 43 percent of marine mammal species (Coe, J. M. and D. B. Rogers (Eds.), *Marine Debris - Sources, Impacts and Solutions*. Springer-Verlag, New York, pp. 99-139, also 'Marine Debris' in *Beachapedia*). As humans are at the top of most of these food chains, plastic could pose a danger to human health. In Bermuda, plastic bags have also been found in the digestive tracts or entangling local turtles (*Bermuda Turtle Project, J. Gray*). In addition, other pollutants may be added to plastics at the time of manufacturing and may ultimately leach into the environment. Two of the most common plastic additives are phthalates and bisphenol A (BPA), which are linked to endocrine disruption in wildlife and humans (*Plastic Debris in the California Marine Ecosystem*).

Why a charge and not a ban?

1. A charge has been shown to reduce usage by 90% (Ireland) and therefore goes a very long way to solving the environmental and waste reduction issues;
2. A charge forces consumers to stop and think, therefore raising awareness (a ban does not present consumers with a decision);
3. Bags are still available for tourists, spontaneous shoppers or those who want them for reuse at home. The response to the Greenrock campaign shows that there are many residents who reuse grocery bags as bin-liners or for recycling. A charge means that they are still able to use the bags this way.
4. Many stores sell reusable bags so customers already have a choice;
5. A charge could raise money for environmental education or remediation.



Why is legislation necessary?

Because this is the only way to achieve real change: the evidence in Bermuda shows that education is not sufficient.

Bermuda recycling rates:

Legislation is the only way to ensure a consistent and achievable approach to the reduction of usage of non-reusable bags in Bermuda. Current evidence shows that education alone is not sufficient.

Despite consistent coverage in the media, well-established programmes in other countries and years of public education here, less than half of Bermuda households claim to participate in the recycling programme (46% of households according to the *2010 Census Report, p.44*). In fact, the actual recycling rates are probably significantly below this based on the amount of material collected at the MRF (*information from Waste Management*). This data shows that the time and money devoted to public education has not resulted in promising results. This means that that public education has not been a widely successful tactic in making Bermuda “greener,” and an additional approach must be implemented. Legislation is necessary as it is the course of action that will provide the best results.



Recycling at the Bermuda MRF.
Photograph courtesy of Waste Management

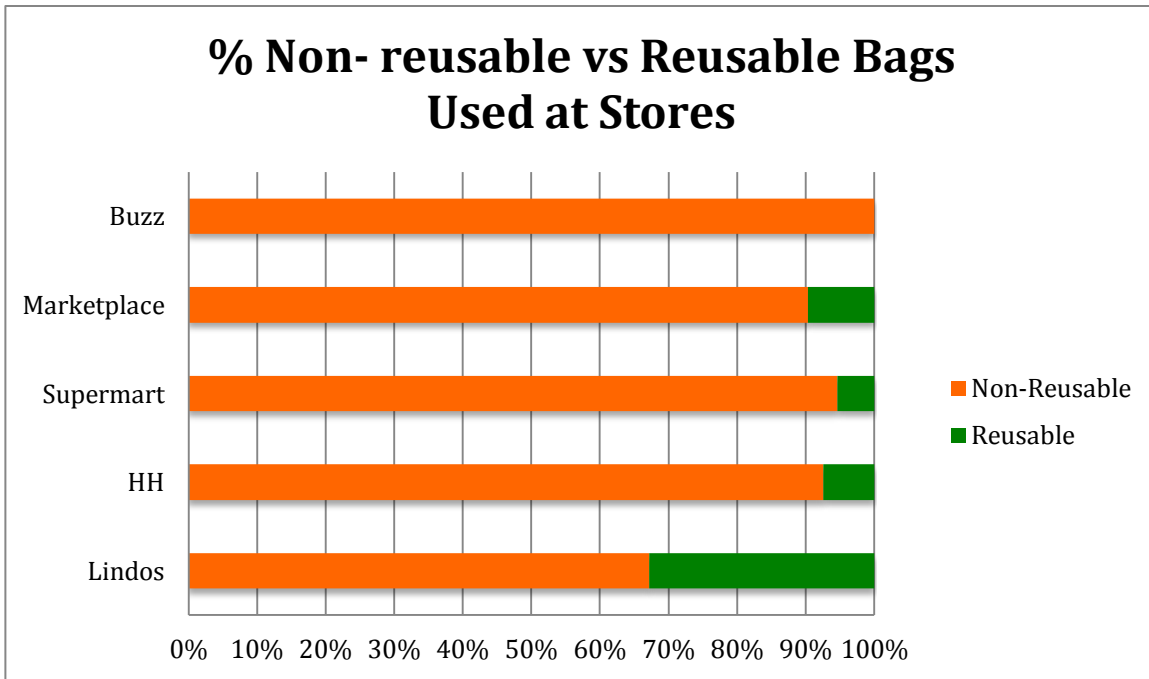
Bermuda ‘green bag’ usage:

We also looked directly at the usage of reusable grocery bags. In 2008, Greenrock and Lindos’ grocery stores introduced green ‘reusable’ bags to Bermuda. This was accompanied at the time by a public education campaign and has continued to be supported by Greenrock and several other charities at every opportunity. All grocery stores now offer reusable bags for sale at checkout, most of them for about \$1. In fact, Supermart offers a discount of 5c for every reusable bag that consumers bring with them.

Data collected from Buzz, Marketplace, Supermart, Harrington Hundreds, and Lindo’s, showed that while almost all customers use bags, even when purchasing 1 or 2 items, over 60% of these bags were non-reusable bags, with four of the five stores showing that over 90% of these bags were non-reusable. (**see chart below**) Of the bags that were non-reusable, the most commonly used bag type was plastic. Legislation is the only way to limit the ongoing use of non-reusable bags and to accomplish change, as these data



points prove that the existing education and bag campaigns have not resulted in a meaningful reduction, and are not enough to achieve change on their own.



Data collected by Aisling Gorman, July 2013

Evidence for the successful implementation of a charge in other countries:

Successful international examples of bag bans demonstrate that such policies are effective at achieving positive environmental outcomes for local governments with minimal burdens to retailers and consumers. Ireland is the most frequently cited example of an effective bag charge policy. Ireland is the most frequently cited example of an effective bag charge policy. In 2002, Ireland began requiring consumers to pay 0.15 Euros for single-use plastic bags in order to reduce rural plastic (*Convery, McDonnell, & Ferreira, The Most Popular Tax in Europe? Lessons from the Irish Plastic Bags Levy (2007) 38 Environmental & Resource Economics 1, 2*). The charge effectively altered consumer behavior reducing demand by 95% (Id. at p. 10 [stating the Irish case study proves, when taken in consideration with evidence from other jurisdictions, that “where policymakers are trying to reduce plastic bag consumption considerably and there is a well-developed and defined retail market . . . a consumer-based ‘downstream’ levy is the appropriate policy measure.”].)

Researchers estimate that the charge has reduced the number of single use plastic bags in Ireland’s litter stream by 94% and increased areas of Irish landscape that are “clear” of plastic bag litter by 21%. Researchers have since declared that Ireland’s policy “has proved so popular with the Irish public that it would be politically damaging to remove it,” and found that it “induces . . . an enthusiasm and affection from those who are liable to pay it.” (Id. at pp. 2, 10.)

China has implemented an effective policy combining a ban with a price signal. In 2008, China banned ultra-thin plastic bags (which are more likely than thicker bags to be carried by wind into the litter stream) and required consumers to pay retailers for



thicker plastic bags. China’s policy also achieved remarkable environmental outcomes: overall plastic bag use decreased by two-thirds, or 40 billion bags, in the first year of implementation alone.

Local governments in the United States that have enacted single-use bag restrictions report positive outcomes. Washington, D.C. became the first U.S. jurisdiction to require consumers to pay for single-use bags in 2009, when it mandated that food and liquor retailers collect five cents per paper or plastic carryout bag provided. (*Romer, supra, 5 Golden Gate U. Env’tl. L.J. at p. 385.*) As a result of the bag policy, the District of Columbia Office of Tax and Revenue estimated that affected retailers issued 86 percent fewer bags in January 2010 (about 3.3 million bags) as compared to the estimated number of bags issued per month in 2009 (22.5 million bags). (See *D.C. Chapter of the Surfrider Foundation, “Bag the Bag,”* <http://ww2.surfrider.org/dc/plastics.html>)

Public Support:



Bermuda ‘Bag Monsters’ on East Broadway, Earth Day, April 22, 2013. Photograph courtesy of KBB

Retail stores and other organizations:

We have approached all the major grocery stores on the island, and there is support for the charge. Retailers like the fact they will save money by not having to import the disposable bags, while also doing their bit for the environment. However, the retailers would prefer that the charge is legally mandated for all: while some were willing to adopt a voluntary charge, they were concerned that ‘going it alone’ it would be a competitive disadvantage.

Bermuda retailers who have expressed their support for a mandatory bag charge:

- Lindo’s
- Marketplace
- Gorhams
- Harrington Hundreds
- Pulp and Circumstance



- A.S. Coopers
- Daisy and Mac
- Buzz

Other organizations that have expressed their support for a bag charge:

- KBB
- BIOS
- Bermuda National Trust
- BUEI
- BEST
- Royal Gazette
- Bermuda Sun



Discarded plastic bag on the Railway Trail.
Photograph courtesy of Greenrock

Greenrock Education:

Greenrock, KBB, Bermuda Government Department of Waste Management and other members of the BMDT continue to educate school children and the public at every opportunity on the cost and the dangers of single-use bags, and continue to advocate for reusable bags. Recent efforts include a series of PSAs on Bermuda Radio advocating reusable bags with the tagline: **“Bring your own Bag, better for you, better for Bermuda”**. In June, at the Centre on Philanthropy Family Community Day, Greenrock ran a booth showing families how to convert old t-shirts (donated) into grocery bags. This proved very popular and about 25 bags were made to the great satisfaction of participating families.

Reaction from the general public:

The BMDT crafted a petition for circulation that demonstrate a good level of public support for introducing a charge. The text of the petition read as follows:



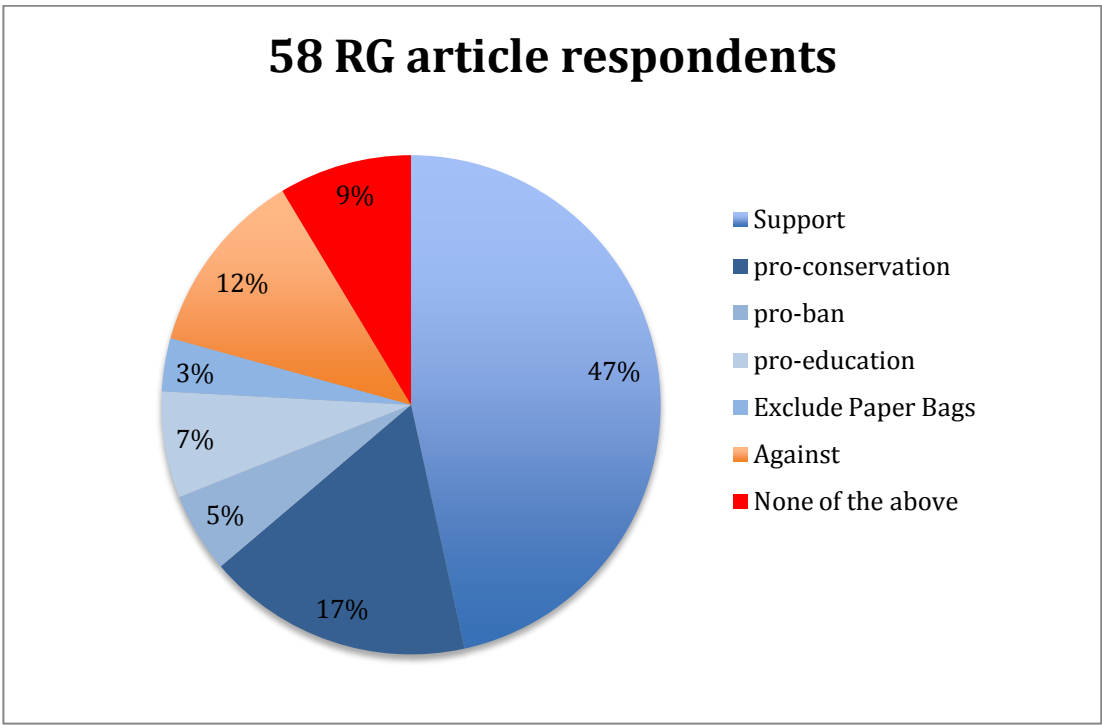
“Lightweight plastic or paper grocery bags are convenient but they pollute our land and our oceans, use valuable resources to create them and are a human health hazard. Millions of dollars are spent each year manufacturing, importing and then incinerating single-use bags. This is an extreme price to pay -- both environmentally and economically -- for about 15 minutes of convenience.

We have a choice. Re-usable bags are sturdy, inexpensive and can be used multiple times. We are asking you to help us to advocate for new legislation to require businesses to charge for single-use bags so that we can reflect their true cost to the environment and our economy.

We can break our habit of single-use bags. A quarter of the world already bans or charges for single-use bags.

Sign our petition calling on the Bermuda Government to impose a mandatory 25¢ charge on single-use bags.”

The petition has garnered nearly 500 signatures since it was launched. What is perhaps more interesting is the comments that it has generated. The Royal Gazette covered the launch of the petition and received responses online from 58 people. While this is not a systematic poll it does represent a cross-section of people who felt strongly either for or against the idea. Nearly 80% agreed that action should be taken to reduce the demand for single-use bags, although only 47% directly supported the idea as stated (25c charge for both paper and plastic bags):



Analysis of comments on RG article about the proposed charge for grocery bags.



Making a success of bag legislation*

Join the rest of the world:

Bermuda needs to join the movement to take action. At least thirty-seven countries have adopted policies to restrict single-use bags, including China, Italy, Mexico City, India, and some of the world's least-developed nations like Bangladesh and Ethiopia (*Retail Bags Report Mats and Related Detailed Lists, Fla. Dept of Environmental Protection* <http://www.dep.state.fl.us/waste.retailbags/pages/mapsandlists.htm> [as of Dec. 11 2012]). 16 states in the USA also have bag bans or charges in place.

Bag bans are so widely supported that the United Nations Environmental Programme Executive Director has called upon all nations of the world to take action: “[T]hin film single use plastic bags which choke marine life ... should be banned or phased-out rapidly everywhere – there is simply zero justification for manufacturing them anymore, anywhere” (*Report Brings to the Surface the Growing Global Problem of Marine Litter (June 8, 2009) U.N. Environment Program*)

Greenrock recommends following the Washington, DC bag model:

This model returns some of the charge to retailers and sequesters the rest for environmental causes. The main points are:

- Require any business that sells food or beverages to charge 25¢ for disposable paper or plastic bags at the point of purchase. This charge must be a separate line item on the receipt to allow for tracking and enforcement.
- No charge will be levied on packaging material such as pharmacy bags, packing for fruit and vegetables, or meat and dairy, pre-packaged bags, take-away food packaging etc.
- 10¢ of the charge would be retained by the retailer as incentive. 15¢ of the charge would be collected by the government (quarterly along with other taxes) and would go into a restricted fund to be used to support environmental and sustainability initiatives. This fund would initially be used to pay for the public education campaign to support the charge.
- All disposable bags would be required to have a message printed on the side to reinforce the campaign to reduce waste.

Bag charges are tolerated well:

According to a survey conducted by the Alice Ferguson Foundation, 74% of polled District of Columbia residents reported that they reduced their plastic bag usage in response to the price signal. The majority of surveyed businesses that offered bag reduction estimates reported that consumption of single-use bags is at least 50% lower as a result of the policy. (*Metropolitan Washington Council of Governments, Plastic Bag Report 2012*) The report noted that “[b]usinesses are not very bothered by the new law, and neither are their customers Instead, businesses are using many fewer bags and like the impact of that on their bottom line.”

A boost for tourism:

* Most of the data cited here comes from the Clean Seas Coalition “Application for leave to file *Amici Curiae* Brief in Support of Respondents County of Los Angeles, et al.; Proposed Brief of *Amici Curiae* Surfrider Foundation, Heal the Bay, the 5 Gyres Institute, Environment California Research and Policy Center, and Seveth Generation Advisors” J. Romer, private communication 2013.



A bag charge will result in a cleaner environment and strong message to visitors that we are a country that cares for our environment. Retailers have expressed a concern that tourists may object to paying for bags (as they are unlikely to travel with their own). We propose working with the Department of Tourism to offer all arriving tourists an attractive reusable bag which will allow them to avoid this charge and when they re-use this souvenir at home it will brand Bermuda as a thoughtful, environmentally aware country.

Conclusion:

Bermuda needs to act to reduce demand for single-use paper and plastic bags for economic and environmental reasons. We are already lagging the rest of the world in doing something to affect change in this area. Education has been shown to have only a small effect on behavior, while legislation has been shown to reduce demand by 70 to 95%. At least 37 other countries and 16 US states have introduced legislation to restrict single-use bags, and we need to do the same here.

A charge for single-use bags will benefit consumers by saving money in the grocery store and reducing the cost of litter management, it will benefit tourism by improving Bermuda's beaches and public spaces, and it will benefit the planet by reducing the resources wasted on manufacturing and shipping bags.

We need to introduce a charge for single-use bags today.

