City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	January 6, 2009
From:	Dave Semple Director of Parks and Public Works Operations	**File:**	10-6405-01/2009-Vol 01
Re:	**Management of Disposable Shopping Bags**		

Staff Recommendation

1. That the Minister of Environment and Metro Vancouver be advised that the City of Richmond supports an Extended Producer Responsibility program for the management of disposable shopping bags.

2. That Metro Vancouver be encouraged to introduce an education and outreach initiative designed to reduce consumer use of disposable shopping bags.

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ROUTED TO:	**CONCURRENCE**		**CONCURRENCE OF GENERAL MANAGER**		
Sustainability Office	Y ☑ N ☐				
REVIEWED BY TAG	YES ☑	NO ☐	**REVIEWED BY CAO**	YES ☑	NO ☐

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Staff Report

Origin

At their November 10, 2008 meeting, Council requested that staff further investigate and report back on the management of disposable shopping bags. In the discussion, staff were asked to investigate options relating to recycling of these bags as well as options for biodegradable disposable bags. This report responds to that referral.

Analysis

The issue of disposable shopping bags, particularly plastic bags, is garnering considerable attention in many communities in light of the proliferation of these bags and associated environmental concerns. A variety of regulatory measures have been implemented in various communities and countries to reduce plastic bag waste and litter including bans or restrictions, environmental levies, charges for bags, voluntary programs and educational or social marketing campaigns. The Metro Vancouver Board recently endorsed a resolution seeking member municipality support for a provincial ban on disposable shopping bags. The Board further resolved to work with local business associations/retailers/consumers to discourage disposable shopping bag use and will also consider an education program.

Background

According to Environment Canada, Canadians use over 55 million plastic shopping bags every week, or between 1.5–2 bags per person. In Metro Vancouver, residents and businesses dispose of approximately 11,000 tonnes of plastic carrier bags each year, or 5 kg per person. A further 13,000 tonnes of plastic garbage bags, some of which are shopping bags containing garbage, are disposed, for a total of 24,000 tonnes of plastic bags annually. This represents approximately 2% of waste disposed in the GVRD.

Environmentally, plastic is made from petroleum, a non-renewable fossil resource. Their lightweight yet very durable nature can allow them to become airborne, resulting in litter which takes an average of nearly 400 years to break down. The litter from plastic bags can affect wildlife and marine life, as it ends up in the landscape and in waterways. Generally, plastic shopping bags represent less than 1% of litter. They are suitable for incineration and are stable and benign in sanitary landfills, although they can contribute to landfill site litter.

Reuse/Recycling

Roughly half of all disposable shopping bags are reused as household garbage bags. Additionally, a number of plastic shopping bags are recycled through various options, including in some stores. In Richmond, there are 8 locations where residents can return plastic shopping bags for recycling (London Drugs, Safeway, Save-On Foods). This information is promoted on the City's website and as part of our community outreach program. This information is also available at www.myplasticbags.ca which is a Canadian Plastics Industry Association information consumer website which provides information about and promotes recycling of plastic bags.

Richmond does not currently accept plastic bags for recycling through our programs (although disposable paper bags are as part of mixed paper) for the following reasons:

- The contamination rate of recycling film accepted curbside and at Recycling Depots can be high, thereby impacting quality and marketability (presence of receipts/waste items, residual leakage of liquids, etc.).

- There is only one local processor of recycling film and the markets generally for film plastic are not sufficiently robust. We require greater market depth before adding recycling product categories to avoid concerns with being unable to market the product. This is particularly important in light of the current recycling market situation, where markets for plastic film are very limited.

- There is limited incentive to producers and manufacturers to reduce or manage waste when local government and the taxpayer at large will assume responsibility for disposal of the products these manufacturers produce. The producer responsibility model used in BC is extremely successful at requiring industry to assume accountability for management of waste from their products. This also provides incentive for industry to reduce waste from their products (the very important first "r" in the waste reduction hierarchy) in order to help reduce waste management costs. This model also promotes full user-pay by product consumers, as opposed to shifting these costs to general taxpayers. This model can also be applied to disposable shopping bags.

Staff note that there are several Lower Mainland municipalities which accept plastic bags as part of their recycling program. However, for the reasons cited above, Richmond staff do not recommend that plastic bags be added to the City's recycling program.

Biodegradable Disposable Bags

Compostable, biodegradable and degradable plastic bags have entered the market place, presented by manufacturers and distributors as an environmentally-friendly alternative to traditional plastic bags. There has been much confusion with terminology and environmental claims as to whether these bags actually disintegrate then degrade. Staff are not aware of any biodegradable or degradable plastic bags which have been third-party certified to specified standards in North America. There are ***compostable*** plastic bags which meet American Society for Testing and Materials (ASTM) standards for biodegrading when composted in municipal and industrial composting facilities. These bags generally require the conditions of a large industrial or municipal compost facility to break down fully.

Note that it is unlikely that any bag would degrade sufficiently in a sealed landfill, since the conditions within a landfill environment are not conducive to the disintegration and degradation process.

A potential downside of compostable plastic bags is that they may affect the plastic film-recycling stream, where these programs exist. Compostable plastic bags have different properties and will contaminate the batch of conventional plastic bags if they become mixed into this stream, thereby negatively impacting the ability to market film from plastic bags. These are

issues which must be considered when designing recycling programs. Compostable bags are more expensive than conventional plastic bags, often more than double the cost. Where broad scale programs are introduced and use increases, however, costs would reduce.

More research into best practises and action relating to third party certification is required in relation to biodegradable plastic bags. All aspects of the product life cycle should be evaluated and considered as part of this process. The Environment and Plastic Industry Council (EPIC) is evaluating and advancing activities in this area.

Staff will monitor this issue for potential future applicability to Richmond's program.

Management of Disposable Shopping Bags

As previously mentioned, there are a number of measures which can be used to manage and hence reduce disposable shopping bag use and subsequent waste. Key initiatives are:

- ***Bans/Restrictions:*** This option helps to draw considerable public attention to the issue, however, staff are only aware of one community (Leaf Rapids, Manitoba) where single-use plastic bags are actually banned. Most bans which have been introduced represent more of a reduction strategy. For example, in San Francisco, a plastic bag reduction ordinance was introduced which requires that large supermarkets provide only recyclable paper bags, compostable plastic bags or reusable bags to customers. The ban does not apply to smaller supermarkets, smaller pharmacies, department stores, etc., hence there will be continued use of plastic bags. Some countries such as China, Kenya, Uganda, etc. have introduced minimum thickness requirements for plastic bags. The District of Tofino passed a resolution banning all merchants from distributing single-use plastic bags, however, the resolution relies on voluntary compliance with no fines.

  The authority of local governments to introduce bans would have to be determined – a legal opinion was not sought on this issue, but can be undertaken should this be required. Staff note that in relation to the Community Charter, municipalities have the authority to regulate businesses, but not prohibit or impose requirements with respect to businesses. Council can, however, regulate, prohibit and impose requirements regarding public places, nuisances and other objectionable situations, and the protection of the environment.

- ***Charges/Levies:*** A charge, levy or tax on disposable and/or plastic bags is another tool to help reduce disposable shopping bag use. A tax was introduced in Ireland in 2002. After much controversy over reward vs. penalty and fee amounts, Toronto has compromised and will introduce a 5 cent fee for each plastic disposable shopping bag in June, 2009. The City of Seattle is seeking a referendum in August, 2009 to accept or reject a proposed $.20/bag fee.

  Levies have the inherent issues associated with introducing a "new tax". As a result, they can be controversial. As with bans, staff have not sought a legal opinion on the ability of municipalities to introduce a levy at this time.

A concern with introducing bans/restrictions or levies is that residents may resort to buying heavier-gauge plastic bags to contain household garbage. For example, in Ireland, the introduction of a levy led to greater than 90% reduction in conventional plastic bags, but an increase in the purchase of heavier-gauge plastic bags. There are reports that while the number of these bags sold has increased post-tax, the benefit of the levy has far exceeded this increase. Critics, however, argue that overall plastic bag consumption increased by over 20% as people substituted heavier plastic garbage bags which were not subject to the levy. Critics further argue that there has been no appreciable change in litter (i.e. less than 1% before and after the tax.)

Richmond staff do not recommend that bans/restrictions and levies be further considered. These strategies would compromise the very effective Extended Producer Responsibility model used in BC (further discussion follows).

- ***Extended Producer Responsibility (EPR):*** This approach requires that the manufacturers and producers of products assume responsibility for all aspects of management of the waste. This approach is used for beverage containers, paint/pesticides, electronic waste and others. The Retail Council of Canada, the Canadian Council of Grocery Distributors, the Canadian Federation of Independent Grocers and the Canadian Association of Chain Drug Stores made a submission to the GVS&DD Board outlining a plan to reduce the number of plastic bags distributed in BC by 50% over the next 5 years. They have stated that the goal of their initiative is to reduce distribution of an estimated 1.5 billion bags by half while promoting the use of reusable shopping bags and providing collection points for the recycling of single-use plastic bags. Their program also includes commitments to consumer education initiatives.

  Richmond staff consider this to be the single-most effective model as it places full accountability for management of waste onto those who produce and consume products. It also forces manufacturers to take a critical look at the products they are introducing into the environment and reduce the waste in order to reduce those waste management costs. It also encourages them to seek out and create new markets for waste from their products. Richmond staff support and recommend that EPR be introduced for disposable shopping bags.

- ***Education/Social Marketing:*** This approach seeks behaviour change through education and promotion to seek voluntary compliance. It is an important component of any initiative, regardless of bans/levies/EPR, etc., but can also be pursued as a stand-alone initiative. For example, the City of Edmonton was considering a ban, but have decided instead to pursue a fully-resourced outreach initiative in concert with retailers to achieve voluntary bag reduction.

  Richmond staff will continue to promote reduction of single-use disposable shopping bags as part of our education and outreach initiatives, including as part of the City's corporate sustainability team. This could be combined with any education program undertaken by Metro Vancouver, should one be introduced.

Financial Impact

None.

Conclusion

Industry has come forward with a proposal geared toward the EPR model. This is a very effective model used in BC for managing waste from products. There are plans at the provincial level to continue to expand this program to include other products. The integrity and consistency of this program should be maintained and applied to disposable shopping bags. Education should also be pursued to help effect behaviour change by consumers and users.

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