

Single Use Plastic Retail Bags – Waste Management Review

Committee of the Whole meeting – Thursday May 26, 2016



Purpose

- This report aims to provide Council with an **overview of the waste management considerations** specific to single-use plastic retail bags, and
- Provide a recommendation for **reduction-measures** and next steps to better manage single use packaging materials.

Background

- On November 5, 2015 GPC, Council directed staff to investigate and report on the issues and considerations pertaining to a ban on single use plastic bags, and
- On February 4, 2016, Council passed a motion to include introducing a ban on single-use plastic bags, as part of the 2016 Strategic Plan amendment.



Single Use Plastic Bags – Introduction

- Seen as a symbol of unchecked, wasteful consumer habits
- Lightweight, high strength-to-weight ratio, inexpensive, convenient, durable and watertight.
- Durability = persist for more than a century,
 - undesirable aesthetic, environmental and economic impacts.
- The production relies on petroleum feed-stocks (normally natural gas)
- Pose environmental impacts over their lifecycle
- Estimated 1-2% of the total landfill waste stream,
- Per-capita usage rates estimated at 200 bags,
- Equates to 17 million bags annually in City.



Issues (+)

- Regulation intended consequences:
 - Create **improved social awareness** and reduce wasteful-norms;
 - Achieve **quick and drastic reduction** of both waste and litter;
 - **Address any sub-standard recycling** and diversion rates of plastic bags; and
 - **May not constitute a major factor** affecting ocean/marine health in the region.
 - More information is required as to the full life-cycle of regional plastic waste pathways, to better understand if our plastic bags are entering the oceans, either abroad or locally.



Issues (-)

- Could also cause a number of unintended or undesirable consequences:
 - Negatively impact **consumer choice**;
 - Fail to address the wider sustainability issues related to **retail packaging overall**;
 - **Lack** relevant regional **information and statistics** about plastic grocery bags;
 - Inadvertently increase the use of **more environmentally harmful bag alternatives**;
 - Cause **incoherence or inconsistency with provincial recycling programs**, thereby imposing confusion and waste-management inefficiencies;
 - Cause **shoppers to migrate** across municipal boundaries to purchase goods at less restrictive retail locations;
 - Cause **undesirable market forces** that negatively impact industry health;
 - Impact personal health due to the transmission of **germs via reusable bags**; and
 - Risk impacting long-term, waste management **stakeholder relationships**, which will rely on positive interaction across the complete value-chain.



Life Cycle Assessment – Impacts of Retail Bag Alternatives



HDPE
(conventional
Bag)



PAPER



LDPE
(glossy, sturdier
Bag)



NWPP
(Synthetic
Fabric)



Life Cycle Assessments – Impacts of Retail Bag Alternatives

• Overall Conclusions

- Environmental impacts depend on production process/energy, materials, numbers of re-uses and end-of-life scenario
- Some bag types pose more significant impacts than others
 - Ex. Paper vs HDPE = 14x water pollution, 3x solid waste, 3x GHG
- Recycled content in any bag-type greatly improves its environmental performance;
- Plastic bags pose more of a litter problem
- Free, lightweight HDPE bags are more likely to be littered than any reusable bag.
- Even paper bags may pose more environmental impacts than plastic bags, in all categories except litter,
 - Due to pulp process energy use, generation of solid waste, and acid-slurry, water pollution impacts.
- **A reusable bag, used a "sufficient" number of times, poses the least environmental impact.**



Overall Packaging Considerations

- What's in the bag?
- High levels of landfill waste = single use plastic, beverage containers, packaging, and plastic film (~18% of City of Vancouver single family home waste)
- A focus only on plastic bags ignores larger waste issue.

Stakeholder Perspectives

- **Industry, recycling reps**
 - advocate for consumer choice, and strong recycling programs
- **Environmental Groups**
 - Advocate for increased regulations to prevent wasteful habits and pollution
- **Province / CRD**
 - Support EPR programs for better recycling and diversion-rates of printed paper and plastic (PPP)
 - Only applies to residential



Options and Impact

1. **Do Nothing**
2. **Voluntary Bag Fee** (recommended as initial action)
 - Applies to both plastic and paper bags to avoid unintended enviro impacts
 - Work with retailers and key stakeholders
 - Meaningful fee is strong lever for behaviour change
 - Revenue generating for retailer's related sustainability programs
3. **Regulated Plastic Bag Ban**
 - Easy to implement
 - Legal considerations
 - Removes consumer choice
 - Can cause unintended environmental consequences
 - Reduces retail and waste management stakeholder integration/cooperation
 - Can cause confusion and migration across municipal boundaries
4. **Regulated Plastic Bag Fee**
5. **Regulated Ban / Fee for Plastic and Paper Bags**
6. **Regulated Fee / Fee for Plastic and Paper Bags** (recommended for future consideration)



Next Steps

- Convene initial meetings with key stakeholders (June 16)
- Develop a preliminary work plan (July 16)
- Report back on initial considerations and findings (July 16)
- Define Strategy and Resource Requirements for plastic packaging reduction program (Dec 16)
 - Recommendations, data management, targets, labelling schemes, suitable alternatives, engagement requirements, waste-management issues, recycling programs etc.
- Progress Program (through 2017)
- Report on Progress



Recommendations

That Council direct staff to:

- Convene initial discussions / meetings with key business and waste management stakeholders before the end of June 2016, to better understand perspectives and issues related to a voluntary bag levy, at a cost of no less than 10 cents per bag, to incentivise the adoption of sustainable reusable bags, with the recommendation to re-invest those funds to improve business packaging and sustainability programs and future packaging reduction initiatives;
- Develop and report on a preliminary work-plan and resource assessment, by July 2016, for the future analysis, engagement, and communications of any related initiatives to reduce single-use packaging;
- Based on those findings, continue development of a more detailed, longer term, work-plan and the associated resource implications, needed to:
 - Work with local businesses and retailers in order to promote a voluntary fee for both plastic and paper bags;
 - To convene or promote a working group with local and regional stakeholders (CRD, MMBC, Province, neighbouring municipalities, waste managers, local retailers and other key stakeholders) to collaboratively develop strategies and initiatives to improve the sustainable management of single-use retail bags, single-use beverage containers, food packaging, and plastic film products, towards an overall goal of zero-waste, and sustainable, circular-economy model.

