

SINGLE USE PLASTICS – A WORLDWIDE ISSUE FOR THE ENVIRONMENT

Plastic long believed to be a miracle material that has solved and continues to solve several needs of mankind while making lives easier is now emerging as a most environmentally damaging issue the world is facing especially from cheap “single use” plastics that are not reusable and recyclable. British Columbia, one of the most beautiful places of earth, need to take action to minimize, seek alternatives and eventually eliminate the use of “single use plastics” from day to day living.

Background

Thanks to plastics, countless lives have been saved in the health sector, the growth of clean energy from wind turbines and solar panels has been greatly facilitated, and safe food storage has been revolutionized. But what makes plastic so convenient in our day-to-day lives – it’s cheap – also makes it ubiquitous, resulting in one of our planet’s greatest environmental challenges.

Since the 1950s, the production of plastic has outpaced that of almost every other material. Much of the plastic we produce is designed to be thrown away after being used only once. As a result, plastic packaging accounts for about half of the plastic waste in the world. Most of this waste is generated in Asia, while America, Japan and the European Union are the world’s largest producers of plastic packaging waste per capita. Our ability to cope with plastic waste is already overwhelmed. Only nine per cent of the nine billion tonnes of plastic the world has ever produced has been recycled. Most ends up in landfills, dumps or in the environment. If current consumption patterns and waste management practices continue, then by 2050 there will be around 12 billion tonnes of plastic litter in landfills and the environment.¹ By this time, if the growth in plastic production continues at its current rate, then the plastics industry may account for 20 per cent of the world’s total oil consumption.

Our oceans have been used as a dumping ground, choking marine life and transforming some marine areas into a plastic soup. In cities around the world, single-use, non-recyclable and non-reusable plastic waste fills up landfills, enters into the freshwater and marine environment through groundwater or directly into surface water producing leachable toxic chemicals that harm ecological systems. Some plastic degraded compounds slowly bio-accumulate into aquatic life tissue, eventually entering the food chain causing widespread ecological and human health impacts. Plastics disposed within minutes of use clog drains, causing floods and breeding disease.

Plastic packaging accounts for nearly half of all plastic waste globally, and much of it is thrown away within just a few minutes of its first use. Any plastic that has no number for recycling which include items such as trash bags, Ziplock bags, cereal bags, bubble wrap, clear plastic wrap, some plastic store bags, single cheese wrappers, straws, coffee stirrers, soda and water bottles, most food packaging, toys, potato chip bags, candy wrappers, plastic rings that hold six-








¹ 2018, Single Use Item Reduction Strategy (2018-2025) – A priority Action in Zero Waste 2040, City of Vancouver

packs of beer or soda bottles and cans, are all examples of single use plastics.² Non-recyclable plastics include most polyolefins such as polystyrene and polyethylene, polyvinyl chloride, most polypropylene and miscellaneous plastics such as bisphenol-A.³ When discarded in landfills or in the environment, single use plastic can take up to a thousand years or longer to decompose. Most plastics do not biodegrade. Instead, they slowly break down into smaller fragments known as microplastics which can enter into food chains.

The world produces hundreds of millions of tons of plastic every year, most of which cannot be recycled.⁴ It's obvious that we need to use less plastic, move towards environmentally sustainable products and services and come up with technology that recycles plastic more efficiently.

In some cases, the plastics do not produce enough reusable material to make recycling economically viable, or there is no market for a particular type of plastic. Some plastics do not mix with others, and the components separate, similar to oil and water. Other types of plastics are made with polymerization techniques that bind dyes and other chemicals to the actual molecules, making removal of contaminants impossible or extremely costly.

The well-recognized “chasing arrows” symbol we see on plastic containers and products does not mean the product is recyclable. The little number inside the triangle tells the real story.⁵

						
PETE	HDPE	PVC	LDPE	PP	PS	OTHER
polyethylene terephthalate	high-density polyethylene	polyvinyl chloride	low-density polyethylene	polypropylene	polystyrene	other plastics, including acrylic, polycarbonate, polyactic fibers, nylon, fiberglass
soft drink bottles, mineral water, fruit juice container, cooking oil	milk jugs, cleaning agents, laundry detergents, bleaching agents, shampoo bottles, washing and shower soaps	trays for sweets, fruit, plastic packing (bubble foil) and food foils to wrap the foodstuff	crushed bottles, shopping bags, highly-resistant sacks and most of the wrappings	furniture, consumers, luggage, toys as well as bumpers, lining and external borders of the cars	toys, hard packing, refrigerator trays, cosmetic bags, costume jewellery, CD cases, vending cups	

Within each chasing arrows triangle, there is a number which ranges from one to seven. The purpose of the number is to identify the type of plastic used for the product, and not all plastics are recyclable or even reusable. There are numerous plastic-based products that cannot break down and cannot be recycled. A three indicates that the water bottle has been made from

² <http://www.plasticfreechallenge.org/what-is-single-use-plastic>

³ http://lausd-oehs.org/docs/Recycling/Non_Recyclable_List.pdf

⁴ <https://www.reference.com/science/kinds-non-recyclable-plastics-866b7711edb040cc>

⁵ <https://learn.eartheasy.com/articles/plastics-by-the-numbers/>

polyvinyl chloride, a five means that it's been made of polypropylene, two materials that are not accepted by most public recycling centers. These usually end up in the landfill taking years to break down while generating potentially environmentally toxic leachate.

The food and beverage industries are best positioned to end the single use of plastics than any other industries. A beginning. The City of Surrey has worked extremely well with food providers at all city events so that single use plastics are not permitted and items either have to be recyclable or bio-disposable.⁶ The use of polystyrene (Styrofoam) by the food industry is one of the major manufacturers of "dirty Styrofoam".⁷

BC termed "beautiful British Columbia" needs to play a leadership role in environmental sustainability in Canada by curbing and phasing out the use of "single use plastic." If no action is taken, the future generations will bear the consequences of environmental damage to the earth ecosystems.

THE CHAMBER RECOMMENDS

That the Provincial Government:

1. Enact regulation under the BC Environmental Management Act to gradually phase out use of single-use plastics within BC to align with the objectives of the Clean BC Plan which focusses on environmental sustainability. The phased process should take into account the economic impact of any changes to the BC EMA and should factor in current capabilities in terms of recycling options;
2. Commission a one-year study through industry, businesses, educational institutions to research alternatives to single-use plastic and commit to a timeframe for complete removal of such material from the waste stream in BC;
3. Work with the food and beverage industry to see the elimination of the production of dirty Styrofoam. This would be done through education and through incentives to industries out there to produce recyclable products and or bio-degradable (quick enough to be accepted by biofuel plants); and,
4. Implement an awareness campaign to help consumers understand that plastic overwrap and other flexible plastics can be taken to recycle depots.

Submitted by the Surrey Board of Trade

⁶ 2018, Single Use Plastics – A Roadmap for Sustainability, United Nations Environment Programme for Sustainability

⁷ <https://www.unenvironment.org/resources/report/single-use-plastics-roadmap-sustainability>