

## Reduction of Single Use Plastics in Nova Scotia

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Executive Summary:

Single-use plastics poses significant risk to the environment in Nova Scotia and globally. It is necessary for Nova Scotia to make progress beyond the focus on plastic bag bans.

Two important initiatives are to educate consumers and businesses and to create policy changes.

Education would focus on providing consumers and businesses with the tools they need to make informed decisions of how their consumption of single-use plastics effects the environment.

Policy and best practices can allow consumers and businesses to have easier choices to reduce their usage of single-use plastics.

An understanding of the barriers to reduction must be taken into consideration when developing policies and recommendations. Sharing learnings from other jurisdictions such as Germany, can provide insights to create the most effective changes. None of these changes will occur until the urgency and importance are acknowledged at a senior level.

With focused effort at all levels, we can create positive changes to reduce the usage of single-use plastics in Nova Scotia.

In Nova Scotia, single-use plastic reduction has primarily been targeted to reducing plastic checkout bags. There is still significant amounts of single-use plastic used in the daily lives of Nova Scotians. Further progress must be made through efforts from individuals, businesses, organizations and government. This process must begin through education, policy changes and best practices.

Placing restrictions and regulations on the usage of single use plastics will reduce the amount of plastic entering our environment. Upon entering the environment, many plastics can have severe consequences. These consequences have effects on the health of people, animals, other living organisms and the planet overall. Items such as plastic bags, nets, packaging materials and other macro-plastics commonly cause entanglement amongst wildlife. This is one example where reducing the amount of these single use plastics entering the environment, there would be improvement in the habitat of many animals. Other less visible effects on the environment occur when plastics enter the food chain. Ingestion of plastics can occur intentionally by way of an organism mistaking the article for food or unintentionally when a predator eats prey unknowing of the plastic inside (Government of Canada, 2020). The ingestion of micro-plastics has been seen to cause inflammation within the digestive tract of the organism and have even been observed in the circulatory system (UNEP, 2016). The presence of plastics in an animal also have harmful effects due to the toxicity of plastic. Many plastics are manufactured using toxic chemicals such as phthalates and BPAs. Upon ingestion, these chemicals have varying and harmful effects on animals and humans. This toxicity is not limited to animals. These chemicals

also enter the environment via landfills, water and soil. Reducing single-use plastics will help limit these harmful effects on the environment and ecosystems.

It is important that appropriate and effective measures are taken to reduce plastics in the environment. Due to the habitual usage of single-use plastics in individual lifestyles and industrial practices, implementing these measures do not come without barriers and cost. One major source of single-use plastics is from packaging. Annually, 78 million tons of plastic packaging is produced globally, only 14 of which is recycled (Royte, 2019). This is a significant amount of plastic that could be reduced. The use of plastic packaging offers benefits for product security and preservation. For example in the grocery industry, most food purchased comes in plastic packaging. The goal of this packaging is to keep the food fresher and to protect the food between processing and consumption. It is believed that in order for a new packaging material to be as openly accepted amongst manufacturers, it must be proven to be as effective and as cost efficient as the current plastic packaging.

The cost of eliminating single-use plastic items also comes at the consumer level. The use of smaller, single-use convenience items such as plastic straws, disposable utensils and plastic water bottles have become a means of efficiency in the lives of many. Most of these items are not recycled and are easily blown away to end up in an ecosystem. The low price of the plastic makes it affordable for most consumers. The ability to dispose of these items after use is extremely popular. This is concerning and has encouraged people to find more sustainable

alternatives. However, many of the alternatives are more expensive than the plastic option. This makes a difficult decision for the consumer when considering their options.

This draws to the fact that regulations should make choices for consumers easier, not more difficult. This could be done using nudge theory. Nudge theory is a concept in behavioural economics that uses the power of suggestion to influence the decision making of people. The idea is to make the decision you want someone to make easy for them. In the case of reducing single-use plastics, this could be implemented by making someone need to specifically ask for a single-use plastic item instead of it being automatically included. Implementing practices like these allows easier decision making surrounding single-use plastics, because the consumer does not need to specify that they do not want the single-use item. This is a very simple solution for many of the small single-use plastics which aren't recyclable. Although, these practices should not be entirely the responsibility of companies, they should also be prompted by policies initiated by the government.

Along with these nudge theory applications, there needs to be education. According to the Recycling Program Access Report, in most of Canada items such as plastic straws and stir sticks, single serve coffee discs, bottle caps and multi-material plastic laminate bags are not recyclable. In Nova Scotia only 24% foam packaging is recyclable and coffee lids are only 52% recyclable (CM Consulting, 2017). If consumers are unaware of the environmental consequences of these products, they will not likely be as willing to eliminate single-use plastics from their life.

Creating an education initiative may help reduce the use of single use plastics in the home, where

businesses are unable to affect choices. It may become more common for people to replace plastic snack bags and saran wrap with plastic containers or beeswax wrap. People may be more inclined to replace dryer sheets with dryer balls and coffee pods with reusable coffee pods. If education does not work to reduce these single-use plastics, regulations may need to be implemented to eliminate these items from stores.

In other countries such as Germany, they are already beginning to make the decision for consumers easier. One step they are taking is to reduce single-use plastics in the grocery store. Produce does not come in plastic and there is no option for consumers to place it in plastic produce bags. Economic incentives are also being offered to companies to encourage them to reduce packaging of their products or to make the packaging more environmentally friendly. Work has also been done to increase the availability of drinking water to the public and increasing the availability of recycling stations (Deutsche Welle, 2018). These initiatives are helping German consumers make smarter decisions around their plastic consumption without having to think about it.

Similar steps should be taken in Nova Scotia. We have the opportunity to regulate how businesses offer single use plastics to consumers. Some of these opportunities include coffee shops offering incentives for costumers to bring reusable cup as well as not automatically supplying straws and stir sticks. Only supplying upon the customers' request. In grocery stores, not supplying plastic produce bags to customers or having prepackaged produce, if they wish to use produce bags they would need to bring their own reusable option. In order to reduce the

amount of plastic water bottles, more accessible and frequent locations for people to fill up their bottles.

Progress can be made to reduce single-use plastics in Nova Scotia through education, policy changes and best practices. Gaining understanding of the success in overcoming barriers in other jurisdictions Nova Scotia can accelerate reduction initiatives. With a consolidated effort between consumers, businesses, organizations and government Nova Scotia can make significant progress to reduce usage of single-use plastics.

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