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25.5.18
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Dear Sir/Madam.

My name is Dave Barrett. I am a lecturer at the University of PEI in Environmental Studies specializing in Environmental Impact Assessment. I am also one of the key players that helped deliver the Waste Watch program twenty years ago. I have an MSc in Environmental Management from Imperial College, University of London. One of the tools I specialize in is benefit-cost analysis. I write to you today to provide quantitative analysis in support of a single-use plastic bag ban. In particular I refer you to the attached study prepared by Marsden Jacob Associates Financial & Economic Consultants entitled *Plastic Bag Ban Options* prepared for the City of Victoria, BC in late 2016. This BCA was used to support decision making that led to a ban on single-use plastic bags. In my opinion Victoria has done its homework and run the numbers and that is why I am sharing the work with you as I do not believe this type of analysis has been completed in PEI.

The study concluded the following in support of a full bag ban:

- Compared with all other options, banning single-use plastic bags delivers the highest net economic benefit
- In the case of Victoria the net economic benefit totals \$64.4 million and \$28.5 million in NPV terms over 10 years and 5 years respectively
- The BCRs over 10 years and 5 years are 1.28 and 1.26 respectively (economic)
- The net economic benefit to PEI would be approximately half that of Victoria (\$30M 10years / \$15M 5 years). The BC ratios would remain the same (economic).

A few facts about single-use plastic bags.

- Approx 500 billion plastic bags are used around the globe each year.
- Western countries have been "offshoring" their plastic pollution to Asia.
- China recently banned the import of what had become a seven million ton per year trade in plastic rubbish. The problem surfaced in July when China told the World Trade Organization that it would cease to accept shipments of waste plastic, including shopping bags and plastic wraps, and other materials by Dec. 31, 2017 because of environmental and health concerns.
- Anywhere between 10 and 20 million tons of plastic dumped into the world's oceans each year through leakage.
- Ocean plastic could triple in the next decade (UK Government, Chief Scientific Advisor, Foresight. Future of the Sea (report) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/706956/foresight-future-of-the-sea-report.pdf).

A few facts about single-use plastic bags in PEI:

- A rough estimate of the number of single-use plastic bags used in PEI over the course of one year is approximately 20 million.
- Burning single-use plastic bags at the incinerator is not a sound economic or environmental solution (higher social cost and increased GHG emissions) compared to a bag ban.
- The production of 1 kg of polyethylene (PET or LDPE), requires the equivalent of 2 kg of oil for energy and raw material
- The carbon footprint of plastic (LDPE or PET, polyethylene) is about 6 kg CO₂ per kg of plastic

- Burning plastic bags in PEI causes pulse GHG emissions in the hundreds of tonnes, a step backward for the province's efforts to reduce GHGs.
- Single-use plastic bags are ubiquitous in the Island landscape and waterways and represent the single greatest ongoing set of negative cumulative environmental effects in PEI that can be easily mitigated at no cost by a ban.

Some additional facts:

- Measures to reduce plastic consumption enjoy a high level of public support, which increases after the measures are implemented.
- Drastically reducing consumption of these key single-use plastic items would effectively eliminate a major source of marine pollution in the waters surrounding PEI.
- Public opinion is firmly in support of a bag ban. More than half of Canadians think banning sale of plastic bags a good idea: poll: <http://nationalpost.com/news/more-than-half-of-canadians-think-banning-sale-of-plastic-bags-a-good-idea-poll>
- Groceries (food) are generally viewed as inelastic, meaning consumers will still buy the same amounts and there is no threat to retailers' business models by the implementation of a province-wide bag ban.

I should note that Minister Brown recently attended the UPE Environmental Studies Symposium on plastic waste, and during that symposium the Minister took the floor and clearly stated that he would ban single-use plastic bags. This promise was made to faculty, students and concerned citizens. While I realize the Minister does not have absolute decision making authority regarding this matter, we expect the Minister to stand by his words and work to follow through on his promise.

PEI showed leadership twenty years ago when the Binns government introduced the Waste Watch program Island-wide. There is now a similar but much less complex opportunity to once again demonstrate leadership by implementing single-use bag ban. Your efforts, if successful, will save the lives of countless animals, birds and other animals and fish who cannot speak for themselves. The Island is a fragile ecosystem surrounded by water, and every day we now see and experience the negative environmental effects of human activities. Plastics are a major threat not only to the environment and global ecosystem health, they are a threat to our own well-being and future security. Taking the very small step of banning single-use plastic bags would be a significant gesture that would stand as an example to other jurisdictions considering similar legislation. There are real and significant economic, environmental and social benefits to be had here, at little or no cost, with no new programs and with very little effort. Waste that we do not create does not need to be managed. The public supports a ban.

Please demonstrate that you care about our environment and the future of our waterways and oceans. You have a real opportunity with Mr. Roach's Bill, we all hope you demonstrate leadership and vision, and enact Bill 114.

Sincerely,

Dave Barrett
Stratford, PE