

NOTICE OF OBJECTION

to the Proposed

SINGLE-USE PLASTICS PROHIBITION REGULATIONS

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NOTICE OF OBJECTION to the Proposed SINGLE-USE PLASTICS PROHIBITION REGULATIONS and the accompanying REGULATORY IMPACT ANALYSIS STATEMENT (RIAS) and GUIDANCE FOR SELECTING ALTERNATIVES TO THE SINGLE USE PLASTICS documents is hereby given. This Notice of Objection is filed under section 332(2) of the *Canadian Environmental Protection Act* and requests that a Board of Review be established under section 333 of the *Canadian Environmental Protection Act* to address concerns raised in this and any other Notices of OBJECTION pertaining to the Proposed SINGLE-USE PLASTICS PROHIBITION REGULATIONS.

The proposed SINGLE-USE PLASTICS PROHIBITION REGULATIONS (SUPPR) are deeply flawed as are the accompanying REGULATORY IMPACT ANALYSIS STATEMENT (RIAS) and GUIDANCE FOR SELECTING ALTERNATIVES TO THE SINGLE USE PLASTICS documents. As such, the Government must reconsider its plans to implement the proposed SUPPR.

This document contains 28 objections to the proposed SUPPR and 86 objections to the RIAS. Objections are also made to the GUIDANCE FOR SELECTING ALTERNATIVES TO THE SINGLE USE PLASTICS, but not to the same level of thoroughness.

In summary both the SUPPR and the RIAS documents:

- Are not thoroughly based on science but appear to be based mainly on highly speculative projections from undisclosed or suspect sources.
- Specify performance criteria for “reusable” items that are unscientific and unfounded
- In their development were tainted by political statements made by ministers prior to completion of scientific assessments.
- Are incomplete or inadequately written with substantial necessary information missing from both.

The conclusion one draws from the RIAS is that the Government felt compelled to display action regarding plastic pollutions, so announced a ban on single use plastics was in the works. A science assessment and addition of “plastic manufactured items” to CEPA 1999 was seen as the most expedient approach to give the Government authority to issue a ban. The RIAS document has glaring holes in its background assessment of the actual prevalence and environmental fate of the six single-use plastics (SUPs) proposed to be banned because this would show that the SUPs were not as harmful to the Canadian environment as citizens are led to believe. The RIAS also dramatically underestimates the monetary costs of the proposed regulations to Canadians, understates the environmental negative effects of the alternatives to the SUPs that Canadians are expected to use, and in the GBA+ does not consider the full scope of the disruption to Canadian lives that the proposed regulation could bring about. The regulation is so poorly written that it effectively could be seen as making it illegal to take home purchases from shopping in the US subject to enforcement action if the purchases are in plastic bags (\$200 tickets?) or could make the sale of pre-packaged items in a grocery store in a plastic bag illegal (Want your frozen peas in a paper bag or a plastic box?)

The proposed SUPPR is likely to be beyond the permitted scope of the enabling CEPA 1999, and also has the possibility of being outside of the jurisdiction of the federal Government. This regulation and the supporting documents are fundamentally flawed and must not be implemented.

Objections to the proposed
SINGLE-USE PLASTICS PROHIBITION REGULATIONS

REFERENCE:

Single-Use Plastics Prohibition Regulations

Definitions

Definitions

1 The following definitions apply in these Regulations.

single-use plastic checkout bag

means a plastic manufactured item that is formed in the shape of a bag that is designed to carry purchased goods from a business and

(a) is made from plastic film;

(b) will break or tear if it is used to carry 10 kg over a distance of 53 m 100 times; or

(c) will break or tear if it is washed in a washing machine in a wash cycle recommended by the manufacturer for washing cotton or linen. (sac d'emplettes en plastique à usage unique)

OBJECTION (1):

There are many problems with these first few lines of the proposed regulation. The first of which is that “plastic manufactured item” itself needs to be defined for the purposes of this regulation. It needs to be well understood legally what a plastic is in the context of this regulation.

Many materials found in nature are natural polymers, such as the cellulose which is the primary constituent of paper and wood. Polymers as a type of molecule, are constituents in all types of plastics. Therefore, it could be argued in the absence of a clear definition, that wood and paper items are also “plastic manufactured items” and subject to these regulations as well.

OBJECTION (2):

While the regulation is intended to place a ban on single-use plastic checkout bags, which an ordinary citizen would assume to be the plastic bags that purchased items are placed in at the time a purchase is completed at among others, grocery or convenience stores, the definition in the proposed regulation does not clearly state this.

As written, this regulation could be applied very broadly to include the use of plastic bags for all pre-packaged items such as loaves of bread or bags of candy. For example, if a person went to a grocery store and purchased a single pre-packaged bag of frozen French fries, the store would be in violation of the regulation since the bag was clearly designed and intended to be used to carry purchased French fries from the business to the consumer's home and the bag would not meet any of the performance requirements in subsections (a), (b), or (c).

Is the intent of this regulation to require that frozen French fries in Canada be sold in different packaging? If so, then it should be clearly stated that it is, or if it is not, then this definition needs to be revised to clearly state that

pre-packaged items are excluded. If on the other hand it is, this regulation will dramatically affect millions of Canadians and businesses in ways that have not been considered at all.

OBJECTION (3):

It is not clear how the performance requirement sub-sections are to be applied. There might be an “or” or an “and” missing at the end of (a). The result is confusion.

Whether a bag is made from a plastic film is irrelevant, since there has been no argument made that plastic film is more environmentally harmful than fabric made from either natural or synthetic materials. The definition of a single use plastic bag should focus on what is “single use” (after we determine what “plastic” is, see Objection 1), not how it is made.

OBJECTION (4):

The performance requirements are unclear and arbitrary. There is no scientific basis for the performance requirements.

a) There are no existing test methods for these performance requirements, so test labs would be put in a difficult position to develop a method, including determining repeatability and reproducibility within a very short time. If multiple labs are developing methods in parallel, the consistency between these methods will be low.

b) There was no apparent consultation on what the performance requirements would be. It seems that the performance requirements were intentionally set unrealistically high. One must ask, what weight of purchased items would a typical person carry in a bag for 53 meters? Realistically not 10 kg, more likely the limit would be about 5 kg. If a person has more than 5 kgs of items, they will likely want to use multiple bags, and use a cart or buggy to cover the bulk of the distance.

c) There is no consideration of the carrying volume in the regulation. This results in smaller re-usable bags being banned, even though they would be more convenient for consumers and have greater potential to get to a breakeven point in terms of Life Cycle Analysis when compared to the currently used plastic bags.

A better approach would be for an international consensus standard (CSA or ASTM) to be developed for performance tests if they are required, since there are obviously many issues that the ministers have not addressed in the draft regulation with regard to testing.

The best alternative would be to abandon the notion of banning so called single use plastic bags.

OBJECTION (5):

The performance requirement for what is and is not a single-use checkout bag are paternalistic toward consumers. As soon as retailers started to routinely charge a fee for checkout bags, consumers used fewer of them. If a bag purchase fee becomes more “significant” consumers will demand that the bags be durable enough to be reused multiple times and even fewer bags will be used. Consumers will decide what the optimal balance of cost and durability is.

The current bags are very much re-usable as they are. It is becoming more frequent for shoppers to pull out used “single-use” bags when shopping. Many bags are currently reused for other tasks around the home. A very common use is for collecting household trash. Other uses include as lunch bags for children, holding dirty shoes from sports activities, holding wet swimwear, etc.

REFERENCE:

single-use plastic cutlery

means a plastic manufactured item that is formed in the shape of a fork, knife, spoon, spork or chopstick and that, after being immersed in water maintained at a temperature between 82°C and 86°C for 15 minutes, changes its shape. (ustensile en plastique à usage unique)

OBJECTION (6):

If this definition is intended to be for single-use plastic cutlery, it must mention that the forks, knives, spoons, sporks, or chopsticks are sold with the intent to be used by people to aid in the consumption of food. Otherwise, any plastic item that is in the approximate shape of a fork, knife or spoon would be subject to this regulation, even if there is no intent for it to be used to consume food.

OBJECTION (7):

There needs to be a clear definition of what “changes its shape” constitutes. Does warpage of the cutlery by less than 1 millimeter constitute a shape change, or is there some small amount of change of shape that is allowable?

It may be better to instead state that “*After immersion in water maintained at a temperature between 82°C and 86°C for 15 minutes, the primary length and width dimension of the cutlery being tested shall not change by more than 2% (or other more reasonable value) when measured at the same laboratory conditions as prior to exposure.*”

The word “exposure” should be replaced with a more definitive or descriptive term. For example, “immersion” is very clear that the item tested is in the water. Exposure does not make this clear.

There should be some guidance on sample size (number of specimens) to be tested and other test criteria. For example, if a manufacture produces plastic cutlery of different colors and configurations, with different trade designations and uses different raw materials there should be reasonable certainty that the tests are going to be conducted the same way by labs working on enforcement as labs working for manufactures trying to determine if they comply.

Overall, the best approach would be for an international consensus standard test method (CSA or ASTM) to be developed since there are obviously many issue that the ministers have not addressed in the draft regulation about testing. Only if a properly developed standard test method has been published would then it be appropriate to set these sorts of standards.

REFERENCE:

single-use plastic flexible straw

means a single-use plastic straw that has a corrugated section that allows the straw to bend and maintain its position at various angles. (paille flexible en plastique à usage unique)

OBJECTION (8):

If this definition is intended to be for single-use plastic flexible straws, it needs to be clear what a “straw” is. For example, “A straw is a thin, hollow cylindrical tube between 100 and 500 mm long used for consuming beverages.”

REFERENCE:

single-use plastic foodservice ware

means a plastic manufactured item that

- (a) is formed in the shape of a clamshell container, lidded container, box, cup, plate or bowl;
- (b) is designed for serving or transporting food or beverage that is ready to be consumed without any further preparation; and
- (c) is made from expanded polystyrene, extruded polystyrene, polyvinyl chloride, a plastic that contains a black pigment produced through the partial or incomplete combustion of hydrocarbons or a plastic that contains any additive that, through oxidation, leads to chemical decomposition or to the fragmentation of the plastic material into micro-fragments. (récipient alimentaire en plastique à usage unique)

COMMENT:

It is appreciated that this definition explains that the items described are for serving and transporting food.

OBJECTION (9):

There needs to be a clear definition of what “expanded polystyrene”, “extruded polystyrene”, “polyvinyl chloride”, “a plastic that contains a black pigment produced through the partial or incomplete combustion of hydrocarbons”, and “a plastic that contains any additive that, through oxidation, leads to chemical decomposition or to the fragmentation of the plastic material into micro-fragments” are.

There are many ways to formulate plastics and to construct products. For example, recycled plastics could potentially be used for these food service items, and the recycled material could have low levels of polystyrene or PVC included un-intentionally. As well carbon black and additives that accelerate oxidation could also be unintentionally included and may not even be visible. There should be some consideration of what constitutes a significant amount of these materials and what is insignificant.

OBJECTION (10):

There has been no clear justification of why “expanded polystyrene”, “extruded polystyrene”, “polyvinyl chloride”, “a plastic that contains a black pigment produced through the partial or incomplete combustion of hydrocarbons”, and “a plastic that contains any additive that, through oxidation, leads to chemical decomposition or to the fragmentation of the plastic material into micro-fragments” are problematic.

If these items are problematic, there needs to be an avenue open for technical innovation to permit these materials to be used for these applications again if warranted.

REFERENCE:

single-use plastic ring carrier

means a plastic manufactured item that is formed in the shape of deformable container-surrounding bands and that is designed to be applied to beverage containers and selectively severed to produce packages of two or more beverage containers. (anneaux en plastique à usage unique pour emballage de boissons)

OBJECTION:

As commented regarding the RIAS, it is incorrect that ring carriers are not accepted for recycling. Soft plastic ring carriers (6 pack versions) are accepted in British Columbia in the category of plastic film, which is collected at regional recycling depots. Hard plastic injection molded rings are accepted in curbside collection. They both are then recycled, probably at close to the same rate as plastic bags, which is 15%.

While anecdotally we have heard of these items entangling wildlife, the use of ring packs in Canada infrequent, (RIAS Table 1 shows ring carriers at 0.6% of all the proposed banned SUPs) and it is infrequent to see them in litter. The occurrence of Canadian wildlife becoming entangled ring carriers has not been demonstrated. It is worth noting that the 2019 Great Canadian Shoreline Cleanup claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers, and still only 1627 (0.1%) items were ring carriers. The ban therefor is a hammer to kill a gnat that might not even exist.

REFERENCE:

single-use plastic stir stick

means a plastic manufactured item that is designed to stir or mix beverages or to prevent a beverage from spilling from the lid of its container. (bâtonnet à mélanger en plastique à usage unique)

OBJECTION (11):

A re-usable plastic spoon could be argued to be a single-use stir stick by the wording of this definition, since spoons are used in fact designed and used to stir or mix beverages. This raises the question of which would prevail.

If the ministers are going to ban single-use plastic stir sticks, the definition needs to be clear enough to describe what a stir stick looks like as opposed to a spoon, fork or knife.

REFERENCE:

single-use plastic straw

means a plastic manufactured item that is formed in the shape of a drinking straw and that, after being immersed in water maintained at a temperature between 82°C and 86°C for 15 minutes, changes its shape. (paille en plastique à usage unique)

OBJECTION (12):

This definition needs to be clear what a “straw” is. It would be useful to state that it is intended to be used by people for consuming beverages and that it is typically a thin, hollow cylindrical tube between 100 and 500 mm long. Using the word “straw” in a definition of a “straw” is bad form.

OBJECTION (13):

There needs to be a clear definition of what “changes its shape” constitutes. Does warpage of the straw by less than 1 millimeter constitute a shape change? Is there some small amount of change of shape that is allowable? (Please see comment above regarding the definition for single-use cutlery).

For the performance requirements, the best approach would be for an international consensus standard test method (CSA or ASTM) to be developed since there are obviously many issue that the ministers have not addressed in the draft regulation about testing. Only if a properly developed standard test method has been published would then it be appropriate to set these sorts of standards. (See above comments)

REFERENCE:

Non-application

Export

2 Subject to sections 6 and 7, these Regulations do not apply in respect of plastic manufactured items referred to in section 1 that are manufactured, imported or sold for the purposes of export.

OBJECTION (14):

This regulation and the attached Regulatory Impact Analysis (RIAS) hold out the faint hope to the Canadian plastics industry that we can continue in business by exporting our product overseas.

If the single use plastic items are such a scourge to nature, why then is the government permitting these items to be exported to ostensibly jurisdictions with fewer controls on pollution than Canada? Maybe because they are not as big a problem as the government claims they are? Or is it because this is a trap for the plastics industry, where we export more to the rest of the world and then the Canadian plastics industry and its linked petrochemical industries are labeled as “imperialist” or “colonialist” and is thereby worthy of being “cancelled”.

It is disingenuous to on one hand claim that the companies potentially affected by this regulation can increase their efforts to export their products and then a little later in the RIAS, note that there are a significant number of other countries that are regulating single-use plastics. The export market isn't going to be growing strongly if this is the case.

This seems to be an effort to avoid compensating Canadian businesses and workers for lost jobs and lost businesses. The RIAS claims that there will be a relatively small number of businesses impacted. It spends time on the “emotional and mental well-being” of people visiting public spaces which supposedly have been affected by plastic pollution. If emotional wellbeing is important, where is this RIAS is the impact of possible unemployment, loss of businesses, disruption in lives and all the other effects on businesses and workers discussed? Does not the emotional (and physical and economic) wellbeing of those Canadians count for something?

REFERENCE:

Single-Use Plastic Straws

Prohibition — manufacture, import or sale

3 (1) Subject to subsections (2) to (6), a person must not manufacture, import or sell single-use plastic straws.

Exception — manufacture or import

(2) A person may manufacture or import single-use plastic flexible straws.

Exception — sale in certain settings

(3) A person may sell single-use plastic flexible straws in a non-commercial, non-industrial and non-institutional setting.

Exception — business to business sales

(4) A business may sell a package of 20 or more single-use plastic flexible straws to another business.

Exception — retail sales

(5) A retail store may sell a package of 20 or more single-use plastic flexible straws to a customer if

(a) the customer requests straws, and

(b) the package is not displayed in a manner that permits the customer to view the package before purchasing it.

Exception — sale in care institutions

(6) A hospital, medical facility, long-term care facility or other care institution may sell single-use plastic flexible straws to patients or residents.

OBJECTION (15):

There is no scientific or other reason why for retail sales, flexible drinking straws need to be offered for sale by request only, and not displayed for the customer to see the package. This type of restriction may be appropriate for tobacco products but seems to be rather excessive for drinking straws since the minors should still be allowed to use and purchase drinking straws. The intent of this section of the regulation seems to be to make it more expensive and difficult for retailers to sell flexible straws. This expense will tend to be passed down to consumers who will still use straws.

OBJECTION (16):

What is a “non-commercial, non-industrial and non-institutional setting”?

OBJECTION (17):

Restaurants (and other businesses offering beverages for sale for immediate consumption) should be permitted to give (sell) patrons single-use flexible plastic straw when a patron requests one. If it is reasonable that an individual citizen could purchase straws for their own use, then it is reasonable that restaurants should be able to provide the same level of service from their establishments.

REFERENCE:

Other Plastic Manufactured Items

Prohibition — manufacture and import

4 (1) A person must not manufacture or import single-use plastic checkout bags, single-use plastic cutlery, single-use plastic foodservice ware, single-use plastic ring carriers or single-use plastic stir sticks.

Prohibition — sale

(2) A person must not sell single-use plastic checkout bags, single-use plastic cutlery, single-use plastic foodservice ware, single-use plastic ring carriers or single-use plastic stir sticks.

OBJECTION (18):

If at some point in the future it once again becomes routine for Canadians to travel outside of Canada, the proposed regulation would result in challenges for Canadians who have made purchases in other jurisdictions.

Would individual Canadians crossing the border back into Canada be subjected to enforcement action if they are in possession of any of the single-use plastic items? It seems reasonable to permit these items to be imported for personal use.

OBJECTION (19):

It seems as if the ministers have not considered well these regulations in the context of security. Specifically, in regard to air travel it seems that metal or durable plastic cutlery would be discouraged in favor of single-use plastic cutlery. For air travel, there is a requirement that it would be difficult for items to be used as weapons, and that everything be as lightweight as possible. The ministers are advised that it may be an excellent idea to consult with the other appropriate ministers.

OBJECTION (20):

Notwithstanding the inadequate definition of “single-use plastic checkout bags” in the proposed regulation, there is no clear scientific evidence that the proposed ban on plastic checkout bags will result in an improvement to the Canadian environment. There have been many articles written in the popular press examining this issue, comparing so called single-use bags with re-usable bags with a great deal of doubt cast on whether there is anything to be gained in an honest assessment of the relative environmental performance of any alternative proposed.

OBJECTION (21):

Since the proposed regulation effectively mandates re-usable bags and other items, there should be a science assessment commissioned to look at the environmental and other effects of this transition. There are obvious concerns about entanglement of wildlife in discarded or lost re-usable bags. Re-usable bags are also likely to be more environmentally persistent than so called single-use bags. Since they are made from fibrous materials or mixed constructions of more than one type of material, re-usable bags are anticipated to be difficult to recycle at end of life.

OBJECTION (22):

The proposed regulation and the preceding regulatory impact analysis do not address properly consumer behavior as a potential cause of plastic (and other) litter. Because of this, it is likely that environmental performance will be worsened as a result of the regulation as opposed to being improved.

If one is an archeologist, one looks at artifacts from the past and posits theories about how the artifact was produced, by whom, for what purposes, etc. Apparently, none of these questions have been asked about typical litter found around Canada, or if they have been asked, the ministers were not the ones asking.

If during a beach clean-up a check out bag with a sandwich bag, an apple core, and an empty glass bottle inside of it are found, an archeologist would assume that the bag had been used to carry someone’s lunch to the beach. The bag obviously was used at least twice. The bag may have been unintentionally lost. The likelihood is that the loss of the bag would not have been affected by it being “re-usable” or not. In this way it is easy to see that whether a bag is “single-use” or “reusable” will make little impact on the number of plastic bags found in the environment. More durable re-useable items being lost in the environment are more detrimental because they require more materials and more energy to produce. There increased durability means that they will persist for longer. If reduction of plastic litter is the objective, the regulation is expected to be a failure. The worst part of this expected failure is that it will come at a significant cost to Canadians, particularly to Canadian industries.

REFERENCE:

Analysis

Accredited laboratory

- 5** (1) Any analysis performed to determine for the purposes of these Regulations the physical characteristics of single-use plastic checkout bags, single-use plastic cutlery, single-use plastic flexible straws or single-use plastic straws must be performed by a laboratory that meets the following conditions at the time of the analysis:
- (a) it is accredited
 - (i) under the International Organization for Standardization standard ISO/IEC 17025, entitled General requirements for the competence of testing and calibration laboratories, by an accrediting body that is a signatory to the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement, or
 - (ii) under the Environment Quality Act, CQLR, c. Q-2; and
 - (b) subject to subsection (2), the scope of its accreditation includes the analysis of the physical characteristics of single-use plastic checkout bags, single-use plastic cutlery, single-use plastic flexible straws and single-use plastic straws.

Standards of good practice

- (2) If no method has been recognized by a standards development organization in respect of the analysis performed to determine the physical characteristics of the plastic manufactured items referred to in subsection (1) and the scope of the laboratory's accreditation does not therefore include that analysis, the analysis must be performed in accordance with standards of good scientific practice that are generally accepted at the time that it is performed.

OBJECTION (23):

The problem with this section of the proposed regulation is that there are no standard test methods in existence to perform the testing required. The ministers have so far not initiated any projects with standards development bodies to develop standardized test methods. The ministers have not even demonstrated that they have completed a review of what other jurisdictions do for analysis to settle the question of whether an item is single-use or not.

This is too important to leave to "*the analysis must be performed in accordance with standards of good scientific practice that are generally accepted at the time that it is performed.*" The reason is that the arbiter of what "*good scientific practice*" is will likely be the ministers and if there is vigorous disagreement, the courts. Keeping in mind that section 2(o) of CEPA 1999 requires that the ministers "*apply and enforce this Act in a fair, predictable and consistent manner.*" This cannot be permitted. Fair, predictable and consistent means that if performance requirements must be mandated, they have to be well thought out and proven, not put together in a rush without even figuring out if the proposed tests are practical.

This is important for the businesses affected by the outcomes of testing and analysis, where the financial risks can be in the millions of dollars and could even potentially bankrupt some businesses. Do the ministers appreciate the seriousness of the impacts that their decisions could have on affected persons or businesses?

I would like to ask the ministers to consider that a regulatory statement such as:

(b) will break or tear if it is used to carry 10 kg over a distance of 53 m 100 times;

leaves many questions that need to be resolved for the analysis and testing. For discussion:

- How many specimens must be tested per sample?
- How is the sample collected?
- How frequently are samples collected and tested?
- What is the temperature and humidity of the test lab where the tests will be conducted?
- Do the specimens need to be conditioned to a certain temperature and humidity?
- What is the shape of the 10-kilogram weight to be used for testing?
- What is the 10-kilogram mass permitted to be made of?
- What dimensions will the 10 kg mass have?
- When the 10 kg mass is put in the bag, is it dropped in or slowly lowered in?
- When the 10 kg mass is removed from the bag, is it flipped out or carefully lifted out?
- What is the shape of the standard “hand” that will be used to carry the bag?
- How much side-to-side swinging is permitted while the mass is being carried in the bag?
- How much vertical (up and down) motion is permitted while the bag is being carried?
- How much time is the standard 53-meter walk to take?
- What is the permitted acceleration and deceleration for the start or stop of the 53-m walks?
- What is a “break” defined as? (What happens?)
- What is a “tear” defined as? (How large?)
- What are the plus or minus tolerances on all the above testing parameters?
- Is it permissible to have a machine to do the testing as opposed to a human?
- Is it safe to have a human perform this test?
- What other safety considerations are needed?
- Can round-robin testing be done to determine the repeatability and reproducibility of the results?

The point of this is that using good scientific practice, it is possible to design a test where virtually every bag submitted will fail, or to design a test that a reasonable number of bags tested will pass. Making the above test difficult to pass is easy, just specify that the 10 kg mass needs to be made from hardened steel with at least 4 sharpened spikes extending at least 2 cm from the body of the mass, equidistant from each other and then require that the person carrying the bag needs to place the mass in the bag, travel the 53 meters and remove the mass from the bag in 60 to 70 seconds. All of this would qualify as “good scientific practice” but it would be completely unfair.

If the Government persists in proceeding with implementation of the regulation, there needs to be an appeal process for analysis results. If the producer of an item subject to analysis has results from a qualified and accredited lab that disagree with results from a lab that the Government has contracted, there needs to be a mechanism for resolving this disagreement. And it cannot be “we are the Government, so we are right”.

In conclusion for this comment, the ministers should not issue a twenty-word test requirement with no standardized method to back it up, that could potentially disrupt business worth \$280,000,000. (See Table 2 of the RIAS for checkout bags). There is nothing that is fair, predictable, or consistent about this.

REFERENCE:

Record Keeping

Records — export

6 Any person that manufactures for the purpose of export or imports for the purpose of export a plastic manufactured item to which these Regulations apply must keep records containing the following information and documents for each type of plastic manufactured item that was manufactured for the purpose of export or imported for the purpose of export:

- (a) in the case of a person that manufactures for the purpose of export,
 - (i) the common or generic name and the trade name, if any, of the item,
 - (ii) the quantity of the item manufactured at each manufacturing facility,
 - (iii) the date of manufacture of the item,
 - (iv) the date the item was exported and the quantity exported or, if it has not yet been exported, the date on which it is intended to be exported and the quantity intended to be exported, and
 - (v) the name of the entity, if any, to which the item is sold in Canada; and
- (b) in the case of a person that imports for the purpose of export,
 - (i) the common or generic name and the trade name, if any, of the item,
 - (ii) the quantity imported of the item,
 - (iii) the date the item was imported,
 - (iv) the copies of the bill of lading, invoice and all documents submitted to the Canada Border Services Agency respecting the import of the item,
 - (v) the date the item was exported and the quantity exported or, if it has not yet been exported, the date on which it is intended to be exported and the quantity intended to be exported, and
 - (vi) the name of the entity, if any, to which the item is sold in Canada for subsequent export.

OBJECTION (24):

It seems reasonable that if the ministers would regulate this industry, that they also be required to keep some records themselves and to make those records available to industry.

It may be argued that the ministers are not going to have many records to be generated, however according to the Regulatory Impact Analysis Statement (RIAS), the claim is made that *“The Government of Canada will continue to draw from a range of evidence sources to monitor environmental effects and follow-up on the state of knowledge with regard to the relative environmental effects of SUPs and their substitutes.”* (see the Follow-Up and Monitoring section of the RIAS.) It is important that the government follow through with this commitment to

look at the relative environmental effects of SUPs and their substitutes. This data should be made available to Canadians in general, and the plastics industry in particular.

The Government also should retain records of efforts to ensure compliance. The plastics industry should be entitled to review information about the labs contracted by the Government to perform analysis on any manufactured item the government intends to regulate. For instance, the principal investigators at the lab should be named, as well as the details of test procedures followed and of any instruments used. In the interest of privacy and fair competition, the public release of results linked to a named company must not be made.

REFERENCE:

Retention of records

7 (1) A person that is required to keep records under section 6 must keep the records at the person's principal place of business in Canada or at any other place in Canada where they can be inspected, for at least five years after the date on which they are made. If the records are not kept at the person's principal place of business, the person must provide the Minister with the civic address of the place where they are kept.

Records moved

(2) If the records are moved, the person must notify the Minister in writing of the civic address in Canada of the new location within 30 days after the day of the move.

OBJECTION (25):

The government has made many claims about the impact of plastic pollution (litter), plastic waste and the benefits of its regulatory plan. The government should consider retaining the records of these claims so that they can be reviewed at a future date for comparison of predicted events versus the actual outcomes.

REFERENCE:

Related Amendment to the Regulations Designating Regulatory Provisions for Purposes of Enforcement (Canadian Environmental Protection Act, 1999)

8 The schedule to the Regulations Designating Regulatory Provisions for Purposes of Enforcement (Canadian Environmental Protection Act, 1999) ^{footnote71} is amended by adding the following in numerical order:

Item	Column 1 Regulations	Column 2 Provisions
38	Single-Use Plastics Prohibition Regulations	(a) subsection 3(1) (b) subsections 4(1) and (2)

OBJECTION (26):

As noted above, ordinary Canadians can easily find themselves in contravention of this regulation. There needs to be greater clarity that this regulation will not be used to punish Canadians who unintentionally violate some of its provisions. (De minimis non curat lex)

For example, it seems that if a Canadian decides to start up a small business hand fabricating and selling re-usable cloth bags made primarily of synthetic fibers, that they could be in violation of this regulation, since there is no way that they can afford to pay for an accredited lab to test the performance of their bags. At some threshold there is no value in any enforcement action other than to exasperate people.

REFERENCE:

Coming into Force

First anniversary

9 (1) Subject to subsection (2), these Regulations come into force on the first anniversary of the day on which they are registered.

Second anniversary

(2) Subsection 4(2) comes into force on the second anniversary of the day on which these Regulations are registered.

OBJECTION (27):

Preferably this regulation never comes into force. It is bad for Canadians, bad for the environment and bad for Canadian industries.

That said, if this regulation is to come into force at some point, it should be only after all the test methodologies required for the determination of what is a re-usable item are fully worked out. Preferably after one of more standards development bodies have approved and published applicable performance standards.

Furthermore, since there are great promises that are being made about how necessary this regulation is for decreasing pollution and plastic pollution in particular, but there is a great deal of uncertainty in the projections made and in the science behind those projections, this regulation should have a “sunset clause” whereby automatically this regulation passes out of force if it is not renewed within two years of coming into full force.

If this regulation is to be renewed, it should only be renewed when evidence of its effectiveness at reducing overall pollution to the environment clearly is demonstrated by data, not opinion or speculation. Considering the size of the overall plastics industry, and the size of the industry that this regulation would affect, it seems reasonable not to have a regulation that will remain forever in force when it does not meet its stated objective, and especially if it were to make the environment worse for Canadians.

REFERENCE:

Single-Use Plastics Prohibition Regulations

OBJECTION (28):

Since the proposed Regulation is based on CEPA 1999 it is critical that the proposed regulations provisions conform to the purposes and intents of CEPA 1999. CEPA 1999 describes the “*Duties of the Government of Canada*” in section 2. The purpose of CEPA 1999 is “*to protect the environment or human health for the purposes of this Act*”.

With that said, it is necessary that the core of any regulation springing from CEPA 1999 must have the same purpose, to protect the environment or human health or both.

Unfortunately, the proposed regulation does neither of these things. With regards to human health there is nothing beneficial to be gained and a potential for human health to be negatively affected.

Regarding the protection of the environment, it is inconceivable that banning certain plastics from being used in SUP items while permitting and potentially promoting other items will in anyway protect the environment.

There are really three issues here, first of which is that when manufactured and used SUPs do not pollute the environment and it is not inevitable or even likely that an individual plastic item will pollute the environment at the end of their life. To include "plastic manufactured items" on schedule 1 of CEPA 1999 is akin to placing steel on schedule 1 and then using that for a ban on all guns and knives made from steel because they could be used to kill people or wildlife. In contrast CEPA 1999 makes sense to use to ban certain pesticides because when used as intended, they inevitably pollute the environment or to ban other substances such as asbestos which barring special disposal methods are very likely to pollute the environment and hurt human health. If human negligence or malice is required in order to turn plastic items into pollution, the connection is too weak. The threshold is reasonable care – if a substance can be handled with reasonable care through its manufacture, use and disposal and not result in pollution to the environment, it should not be on CEPA 1999 schedule 1. The issue then is human nature, not the substance.

The second issue is that nothing that the government has produced in terms of science or otherwise has made the case that plastic bags made from fiber is less polluting than a plastic bag made from a film. Nor is there a case to be made that a piece of plastic cutlery that will tolerate 82°C is less polluting than one that will not. Nor is there any evidence that a plastic food service item made with white polypropylene will be less polluting than the same item in black. The reason is that there is no difference. While these changes or substitution may be better for recycling and reuse, they have nothing to do with protection of the environment because recycling and re-use are almost exclusively going to be tools to reduce "waste" that is properly disposed of material in landfills and not so-called pollution. Waste management is not under the purview of CEPA 1999.

A third issue is that the Government hopes that the proposed regulation will result in people switching to better alternatives, however since there is nothing in the proposed text that incentivizes the alternatives that the Government wants Canadians to use, it seems a bit far-fetched to assume that Canadians will do exactly what the Government wants them to do. Wishes do not protect the environment or the health of Canadians.

Since the proposed regulation is not demonstrated in itself or by the attached RIAS to be in line with the purpose of CEPA 1999, CEPA 1999 cannot be used as its basis. It is very clear that specific provisions of the proposed regulation cannot be seen to have any direct or secondary outcome furthering the purposes of CEPA 1999, for example the above-mentioned bans on certain types of plastic bags and certain types of plastic cutlery. As such this regulation cannot be put into force because it overreaches the intent and purposes of CEPA 1999.

Objections to the
REGULATORY IMPACT ANALYSIS STATEMENT
for the proposed
SINGLE-USE PLASTICS PROHIBITION REGULATIONS

REFERENCE:

Background

Issues

“The Canadian economy generates large amounts of plastic waste every year, of which a certain proportion enters the environment as plastic pollution.”

OBJECTION (1):

Since the proposed regulation is to be applied to “plastic” items and “plastic pollution” it would be helpful for the Government to define what it does and does not consider to be “plastic” and “plastic pollution”. For example, some would argue that silicone is a plastic while apparently the Government does not consider silicone to be a plastic since it is referenced as an alternative to plastic in several places in this Regulatory Impact Analysis Statement (RIAS). Frequently in industry there is a discussion about whether rubber materials are considered plastics or not as well.

If the term “plastic” is not defined, it is possible to argue that wood and paper are also plastics because wood and paper products share many of the chemical and compositional attributes of plastics, such as consisting primarily of polymeric molecules. If that were the case this regulation would become completely impractical since the alternatives that the Government is suggesting would also potentially be subject to the same regulation.

REFERENCE:

Background

Issues

“Preventing pollution and waste is an area of shared jurisdiction between all levels of government in Canada, and plastic pollution from certain SUPs is an issue with national and international dimensions that cannot be effectively eliminated through provincial, territorial, or local measures alone.”

Background

Government action on plastic waste and plastic pollution

“In November 2018, through the Canadian Council of Ministers of the Environment, the federal, provincial, and territorial governments approved, in principle, a Canada-wide Strategy on Zero Plastic Waste (PDF) (the Strategy).”

Background

Government action with respect to single-use plastic manufactured items

“Several municipal and provincial jurisdictions have already implemented bans on a selection of these six categories of SUPs. For example, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island each implemented bans on SUP checkout bags in 2019 or 2020, which prohibit businesses from offering SUP checkout bags. The bans permit businesses to offer paper and reusable checkout bags, but only Prince Edward Island mandates minimum fees for offering substitute checkout bags. All three of these bans also prohibit “compostable”

and oxo-degradable SUP checkout bags and include various exemptions. As of August 2021, no other SUP bans have been enacted at the provincial or territorial level, though British Columbia published a framework to facilitate municipal bans,^{footnote12} and a handful of municipal governments have implemented SUP bans on a localized level. For instance, Montréal, Sherbrooke, and several smaller municipalities across Canada have implemented bans on SUP checkout bags, and, while Vancouver has yet to implement a proposed prohibition on SUP checkout bags, a ban on SUP straws, SUP cutlery, and certain SUP foodservice ware came into effect in 2020. Yukon's May 2021 Speech from the Throne stated that they intend to ban SUPs, but no specifics were provided."

OBJECTION (2):

These three sections of the regulatory impact analysis statement show a conflict. The federal ministers are claiming that this is an area of shared jurisdiction, when in fact managing waste is not at all an area of shared jurisdiction. The provincial ministers of the environment seem to be united in wanting to reduce plastic waste. The provinces and municipalities have acted rapidly relative to the federal government.

Yet the claim is made that provincial, territorial and local measures are not enough. In the Canadian context it often seems that for local problems with local consequences local solutions are best. While the perceived issue of plastic pollution is portrayed as being national and even international, the fact is that the beginning and the end of litter is at a local level.

REFERENCES:

Background

Lifecycle of plastic manufactured items in the Canadian economy

"Of the 3.3 million tonnes of plastic waste generated nationally in 2016, 2.8 million tonnes (86%) were landfilled, 300 000 tonnes (9%) were recycled, 137 000 tonnes (4%) were incinerated with, or without, energy recovery, and 29 000 tonnes (1%) became plastic pollution, of which 2 500 tonnes were marine plastic pollution. Using those numbers, Canadians produced around 800 grams of plastic pollution per capita in 2016. If observed market trends were to continue, the Deloitte Study estimates that the 2016 figures for plastic waste and plastic pollution could increase by roughly one third by 2030."

OBJECTION (3):

The bulk of the following comments are about what is missing, not what is here.

The Deloitte study did not actually take real measurements of the quantities but instead relied on published estimates. This study was not authoritative and could be substantially wrong on key questions. The quantities of plastic pollution cited, are likely based on a single famous article (Jambeck et al) published in "Science" that developed estimates for the amount of plastic pollution entering the world's oceans by a different model than had previously been used. The results of this model were published to great acclaim as it reinforced the opinions among environmental activists that a crisis existed that until then had not been apparent.

What is entirely lacking in this background is a review of the composition of the "plastic pollution" portion. It is only much later (Table 11) in this RIAS that we find out that the government expects that in 2024 the amount of "plastic pollution" could be decreased by about 2200 tonnes with the aid of the regulation. There is no discussion at this point about other types or categories of "plastic pollution" that are also significant. For example, the relative significance of "ghost gear" (lost or abandoned fishing gear in the marine environment) is ignored possibly because while it does greater harm, it is less publicly visible.

The lack of consideration of the other types and categories of plastic pollution in this RIAS shows that the Government potentially has ignored its duty to determine the most effective means of reducing harm to the environment.

OBJECTION (4):

Missing is a closer examination of the routes that the so-called plastic pollution takes to enter the environment. If we consider the routes of entry, we may be able to address behaviors that result in pollution. This would better inform regulatory instrument selection. The Science Assessment did not adequately address this issue, especially with regard to the six SUPs that the proposed regulation is intended to address. This is a serious shortcoming and needs to be addressed before any regulation is put in place.

OBJECTION (5):

There is no assessment of the expected environment fate of the various SUP items. For instance, how long does the Government expect that a plastic checkout bag will survive in the environment? Anecdotally people are told that plastics last forever, but they do not. Either plastics breakdown in the environment to the point that they are harmless or else they are collected and properly disposed of. How much plastic litter is consumed annually in forest fires and grass fires along roadsides for example?

Without a look at the environmental fate which is something that is consistently done with other regulated substances, regulation should not be implemented, since current understanding of the problem is needed to take effective action.

OBJECTION (6):

There is no assessment of the current impact on Canadian wildlife and environment of plastic pollution. There are numbers on how many tonnes are expected to be “polluted” but not on how many birds or fish or turtles etc. killed by plastic pollution in the Canadian environment. If we don’t know what the “footprint” is, how are we going to know if we have reduced it? There also is no breakdown of the portion of the identified harm that is actually caused by the each of the six single-use plastics. What happens if we find out that a total of 10 seagulls and 5 raccoons die every year in Canada caused by the six single use plastics and that once every 10 years a turtle or some more interesting bird dies from consuming some of one of the six SUPs? Would it not be more cost effective to simply breed a few more gulls or racoons?

Without having any evidence of any actual harm to the Canadian environment (the research has been collected globally but very little of it relates to Canada) there is no basis for determination if a regulation is or will be cost effective or even if it will have any impact on environmental quality. To assume that litter is creating a huge harm in the Canadian context without any evidence is irresponsible.

OBJECTION (7):

Since plastics have been used for a relatively short period of human history, what happened to the plastic pollution that has taken place over the last 70 years? If the estimates and statement presented in this RIAS are to be believed, accounting for gradual growth in plastic pollution, today there should be about one million tonnes (or 100,000,000,000 single use plastic bags) of plastic pollution in the Canadian terrestrial environment. This pollution should be becoming more and more apparent every day as the bulk of plastic pollution would be concentrated near cities and towns.

In fact, plastic pollution is not as prevalent as the speculative estimates suggest. You cannot turn a shovel full of soil over and expect to see particles of plastic. This begs that the questions: Where did it all go? Are we potentially wrong in assuming that so much of it is accumulating in the environment every year?

Maybe the estimates of plastic pollution are wrong. Maybe the remaining “plastic pollution” after litter pickup is 1/10th the amount. Maybe single use plastics break down rapidly enough that most of them are unrecognizable and harmlessly held in the topsoil.

Without a closer look we are just guessing with this regulation. If we are regulating from a point of near complete and willful ignorance the outcome cannot be productive.

REFERENCE:

Background

Science Assessment of Plastic Pollution

“Overall, the Science Assessment recommend pursuing immediate action to reduce the presence of plastic pollution in the environment, in accordance with the precautionary principle as defined in section 2 of CEPA.”

OBJECTION (8):

The Science Assessment of Plastic Pollution did not properly apply the precautionary principle:

- It failed to provide demonstration of the seriousness of a threat to the environment
- It failed to provide evidence that there is a real threat to the Canadian environment
- It failed to prove that any harm to the environment (serious or otherwise) was irreversible
- It failed to prove harm to the environment as a whole as defined in CEPA 1999
- It failed to properly apply all available knowledge (available science both pro and con)
- It failed to consider in their recommendation that action should be cost effective

The authors of the Science Assessment did not recommend immediate action. The use of the word “immediate” is critical since it implies that the need to act is urgent. While this may be a minor issue to some, it points to a potential lack of integrity in the process where subsequent report incrementally overstate severity and understate benefits identified in earlier reports.

RATIONALE (8):

The precautionary principle needs to be applied with care. The reason being that it suffers from potentially leaning heavily on the logical fallacy of the argument from ignorance, which is that unless something can be universally proven to have no detrimental effects that it should not be done. There are variations on this fallacy such as ignoring the weight of the known positive evidence in favor of potential negative evidence, but the result is always the same, which is to reject anything new. To prove the absurdity of the precautionary principle taken to an extreme, consider that if the precautionary principle were applied to itself it would result in a logical paradox. That is, we should not use the precautionary principle until it is proven that no harm can come from using the precautionary principle.

The drafters of CEPA 1999 recognized the need for care and qualified the use of the precautionary principle in section 2 to only situations *“where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”*.

While the Science Assessment does present some evidence of some harm to animals, it does not make a case for the seriousness or irreversibility of harm to the environment. In fact, to the contrary, it seems implicit that any harm from macro-plastics is by its nature quite reversible, and despite our not wanting to see harm to any individual animal, not a serious harm to the environment as a whole.

There must be a real threat to the environment for precautionary principle in CEPA 1999 to be invoked. This means that theoretical threats are not to be considered. For example, the theory that plastic scrap can transport invasive species etc. is not a proven threat, but a theoretical threat. There is no evidence in the Canadian context that this is something that could happen, and it is unclear if globally there has ever been or could be an instance of plastic litter being the most probable transporter of an invasive species or disease.

The Act mentions that besides a real threat, that *“a lack of full scientific certainty shall not be used”* to postpone action. This indicates that it is optimal for there to be some scientific certainty, and at the very least some attempt to gain some scientific knowledge about the topic. It does not give the government a free hand to have no scientific basis for making decisions. It also does not permit the government to put “blinders” on and ignore an abundance of experience and evidence that suggests that vast majority of all plastic manufactured items are environmentally benign or potentially beneficial.

The “blinders” are apparently on since plastics have for decades been ubiquitous and yet both humanity and the environment have remained intact with the presence of plastic litter. Certain aspects of the environment have benefited greatly from humanities utilization of plastics as opposed to other materials. Section 2(i) of CEPA 1999 mandates that knowledge, including science and technology be applied to identify and resolve environmental problems. Acceptance that plastic manufactured items overall have been beneficial to the environment and human health is the acceptance of knowledge, science, and technology.

CEPA 1999 talks about the environment, not small sub-populations of animals or plants. It reiterates this emphasis by stating that the administration of CEPA 1999 shall *“implement an ecosystem approach that considers the unique and fundamental characteristics of ecosystems”*. This makes it clear that the ecological or environmental harm that the Act is intended to address is harm to the overall operation of the environment as a system rather than its effects on small sub-populations of wildlife.

If the precautionary principle as defined in CEPA 1999 section 2 is critical, then some credence should be given to the cost effectiveness of measures early in the preparation of the Science Assessment and throughout the following steps the government has taken. As stated above, the application of knowledge is supposed to guide the administration of CEPA, so the application of technological and engineering economics should be included early on and at the very least an analysis of what would be an appropriate price to pay for reaching a prescribed goal.

REFERENCE:

Background

Science Assessment of Plastic Pollution

(Various referenced documents used in this RIAS or the Science Assessment)

OBJECTION (9):

Even when the title of a publication contains the word “science” it is probable that a significant portion of the contents of said publication are not science but opinion or speculation. Similarly, it is possible for just about any person these days to self-identify as a scientist, however that does not mean that they are, and it should never be assumed that if a person identifies themselves as a scientist that every statement that they make has more validity than a statement made by a person or organization not claiming scientific status.

For this reason, many of citations used in this RIAS are suspect. For instance, Jambeck et al is cited, but not as a source for an estimate of the quantity of plastic pollution, but to back up an opinion about the prevalence of

certain types of plastic pollution. In the Jambeck et al article the conclusion was that we may be getting our estimates up until that point wrong with regard to the quantities of plastic pollution going out into the marine environment. Jambeck et al made several assumptions (guesses – not science) as a starting point for the article since otherwise they would have no place to start. Those guesses were reasonable on a global basis, but still especially in a smaller national level context, could be wildly incorrect as Jambeck et al would probably be willing to acknowledge. But the RIAS uses those assumptions as given facts because they were published in “Science” and so therefore must be science.

It appears that little data (the numbers that are obtained when measurements are performed) is behind the Governments review of the science, rather a network of secondary sources that cite each other and often exaggerate the claims of the sources that they cite. In some cases, estimates also known as speculation or guesses replace data completely.

Granted that the Science Assessment did cite some legitimate scientific work, the problem with that scientific work is that the relevance of the work cited to the Canadian context was not explained. For example, if a scientist does a study of an effect on a particular species or ecosystem, it would be helpful to have had information about whether that species or ecosystem type was present in the Canadian environment.

Overall, there are significant concerns about the integrity and veracity of the science used to support the addition of “plastic manufactured items” to schedule 1 of CEPA 1999 and to an even greater degree to support the development of the proposed regulation on the six identified single use plastics.

REFERENCE:

Background

Government action on plastic waste and plastic pollution

“Based on the results of the Science Assessment and other available information, the Minister of the Environment and the Minister of Health (the ministers) were satisfied that plastics manufactured items met the ecological criterion for toxic substances set out in paragraph 64(a) of CEPA.”

OBJECTION (10):

CEPA 1999 paragraph 64(a) states that substances ***“have or may have an immediate or long-term harmful effect on the environment or its biological diversity”***

Based on these narrow criteria the conclusion reached by the ministers was not valid to draw. Could the ministers reconsider this conclusion?

RATIONALE (10):

- Harm to a single plant or animal or even a group of plants or animals is not sufficient for something to be considered environmentally harmful (see fishing, hunting, logging, insects hitting windshields of cars, etc.) It is possible that a substance does no overall damage the integrity of the environment as a system while harming one organism. This was not addressed in the Science Assessment.
- We have a decades long history of use of plastics and unfortunately emission of plastic litter. We don't have to worry about new threats from plastic litter. There is no need to consider the ***“or may have”*** situations. At this point theoretically future threats from plastic litter are no more than science fiction.
- Which is the harm? Is it immediate or long-term, or neither? Plastic manufactured items do not have an immediate harmful effect on the environment, at the point in time when they are manufactured and used. Similarly, there is no evidence of long-term harmful effect when taken as an aggregate, since over 99% of

all plastic manufactured items are not released into the environment as litter at the end of their life. There is no characterization of the portion of plastic litter that is benign versus beneficial versus deleterious. What if of the small fraction of plastic manufactured items that ends up as litter, an equally small fraction of the litter does actual harm (for example <0.005% of all plastic manufactured items)?

- The Science Assessment did not support a conclusion that there is a threat to biological diversity due to plastic litter arising from plastic manufactured items. Plastic litter has not been blamed for the extinction or expected extinction of any species. The Science Assessment reviewed some literature on invasive species which theorized that spread of disease pathogens or invasive species could happen more rapidly due to waterborne plastic litter, but it did not relate this back to actual occurrences or the Canadian environmental context. The data in the cited literature effectively demonstrated that plastic litter was as effective or more effective as a substrate for flora and fauna to reside on in aquatic environments allowing them to be transported by currents greater distances than on naturally occurring materials such as driftwood. There was no discussion of the relative prevalence of driftwood versus plastic litter in the aquatic environment, so context is unknown. It should also be noted that “rafting” of organisms in the improbable event it happened, could also be seen as beneficial, since this is a natural means of species otherwise threatened with extinction, moving from regions that are no longer hospitable to regions that are.
- The Science Assessment and this Regulatory Impact Analysis Statement draw from a wide variety of sources, however very few of these sources give data relevant to the Canadian environment or to the actions of Canadians. While Canadians certainly are interested in being good global citizens, if research is done in Europe or Asia for example, there must be a rationalization about how observations made apply to either the Canadian environment (i.e., are there similar ecosystems in parts of Canada with the same or very similar species?) or to the actions of Canadians (i.e. plastic litter items found doing serious harm could be clearly traced back to the irresponsible actions of Canadians).

OBJECTION (11):

The Science Assessment was an assessment of “plastic pollution” and was limited to only this scope. The ministers appear to have incorrectly conflated “plastic pollution” with “plastic manufactured items”. It is unlikely that the other available information consulted looked more broadly at the overall impact of “plastic manufactured items”. Will the government commit to performing a Science Assessment for “single use plastics” since the proposed regulation is applied to “single use plastics” not “plastic manufactured items” or “plastic pollution”?

RATIONALE (11):

Not all “plastic manufactured items” become “plastic pollution”. Studies cited by the government suggest that less than 1% of all manufactured plastic items become “plastic pollution”. The science assessment should therefore have been done on “plastic manufactured items” before adding “plastic manufactured items” to CEPA Schedule 1, or since the ministers wanted to address “single use plastics”, then the Science Assessment should have been conducted on “single use plastics”.

This begs the question, did the ministers believe that the weight of the science with regard to the environmental harm caused by either “single use plastics” or “plastic manufactured items” was so lacking that it was more expedient to do a Science Assessment on “plastic pollution” or did the ministers make an unintentional error in not asking for the correct Science Assessment to be performed?

REFERENCE:

Background

Most prevalent items contributing to plastic pollution

“Despite the differences in the number of items recovered in each item category, some item categories are considered more environmentally problematic in terms of being more harmful to wildlife or the environment in general, based on their material, weight and shape or structure. Of common consumer items made of plastic, plastic bags have been found to pose one of the greatest impacts to marine wildlife. ^{footnote11} Plastic bags are light-weight and usually have looped handles, meaning wildlife can become entangled in their handles. Plastic bags and utensils have been rated the greatest risk in terms of ingesting plastic items for seabirds, turtles and marine mammals. ^{footnote11} Ring carriers can also pose a threat of entanglement as they also have a looped structure.”

OBJECTION (12):

It is appreciated that besides “citizen (activist?) science” this document does cite a peer reviewed piece of research into the categories of litter that are more problematic than others and to put together a ranking of this. The paper cited is by no means perfect, but despite its flaws, it at least has at its core some merit in that it is based on the observations of persons who have worked with wildlife affected by litter, so they would know which litter is the most damaging.

That said, this analysis document does not mention that in this paper, the six SUPs were not on the top of the ranking list for the most harmful. Instead, this impact assessment brushes this aside stating “Of common consumer items...” as if we should not pay attention to buoys, nets, pots, fishing nets, and monofilament fishing line as more seriously harmful to the marine environment.

This begs the question, are the intended bans about reducing the harm to the environment caused by plastic or other pollution, or is the intent to target “common consumer items” for action?

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

“In June 2019, the Prime Minister announced a commitment for the Government of Canada to take steps to reduce plastic waste and plastic pollution, including working with provinces and territories to introduce standards and targets that would make companies that manufacture plastic products or that sell items with plastic packaging responsible for their plastic waste. In the same announcement, the Prime Minister committed the Government of Canada to banning harmful SUPs as early as 2021, where warranted and supported by scientific evidence, and reaffirmed this commitment in the Mandate Letter to the Minister of the Environment in December 2019 and in the Speech from the Throne in September 2020.”

OBJECTION (13):

It is very unusual that for the Prime Minister to make an announcement and then issue mandate letters as he did that clearly had a high potential to prejudice the outcome of the Science Assessment and even the topic of the Science Assessment (“plastic pollution” instead of “single use plastics” for example). There is nowhere an acknowledgement that statements by the Prime Minister and the ministers responsible, could have tainted the process or took steps to avoid bias being a problem.

RATIONALE (13):

The Prime Minister is an influential person, and his opinion is amplified by the media. His cabinet ministers likewise are influential on Canadians and to a greater degree on their respective departments. It is clear to a great many Canadians what the opinions of the government are regarding plastics. In this context it is difficult for employees of the Government to appear to be performing a truly un-biased review of the available facts as part of any assessment or analysis undertaken.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

“As outlined in the Discussion Paper, in order for a SUP to be considered harmful such that a ban would be warranted and supported by science, the SUP in question must meet the environmentally problematic and value recovery problematic criteria using scientific evidence to assess environmental prevalence and value recovery challenges, with consideration for exemptions for certain essential functions. After evaluating the wide selection of SUPs in this way, the Framework identified six harmful SUPs, or categories of SUPs identified by utility, warranted for prohibition or restriction in Canada.”

OBJECTION (14):

This statement conflicts with the Discussion paper cited when it states that the bans are supported by science. The Discussion Paper cites limited sources and none of them are primary source peer reviewed scientific publications (that is not literature review documents, policy documents, or activist literature). Science is not the basis of the decisions making process and the Framework, instead the opinion of the authors is.

RATIONALE (14):

The Discussion Paper states that all six SUPs identified are “prevalent in the environment”, but it appears that the only source of this conclusion is the “Great Canadian Shoreline Cleanup” which is not a peer reviewed scientific study, just a table of numbers of pieces of different pieces of garbage found by volunteers. A critique of the data from the “Great Canadian Shoreline Cleanup” is that it is hindered by confirmation bias, whereas the participants are encouraged to collect and report as much garbage as possible. This tends to lead to over reporting. Participants would obviously target high traffic urban shoreline areas since they are easiest to access and easiest to find litter at. Moreover, there are potential issues such as volunteers trespassing on private land to find litter and volunteers simply taking the contents of garbage receptacles and claiming that they picked up this litter themselves.

The SUPs intended to be banned are only found in certain locales, not the entire environment. This can easily be demonstrated by going outdoors. The Discussion paper states that all six SUPs are prevalent (widespread and frequent) in the environment, so it stands to reason that if this were true, you would during day-to-day activities see frequent occurrences of all six SUPs as litter or pollution. This however is not the case for the average Canadian. The average Canadian might see all six in a day, but only in the context of proper use of these items, not as prevalent litter. Canada in general is fortunate not to have widespread and frequent litter of the sort seen in some developing countries.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Checkout bags... ..SUP checkout bags have low recycling rates (estimated at less than 15%) despite being accepted in several recycling programs across Canada, and are known to hamper recycling systems by becoming caught up in sorting and processing machinery.”*

OBJECTION (15):

It would be incorrect to characterize a 15% recycling rate as “low” when the stated average recycling rate for plastics in general is 9%. The recycling rate for plastic bags most like is bringing up the average. If this is the case, it also would be incorrect that plastic bags are unduly hampering recycling, since once again they are recycled at a higher rate than average. Finally, it is unclear if the plastic bags that are being blamed for becoming caught in sorting and processing equipment are “grocery bags” or the large plastic “blue bags” which had been used for bringing items to be recycled to curbside pickup. Recently many municipalities have phased out the use of “blue bags” for recycling.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Checkout bags... They are some of the most common forms of plastic litter in the natural environment (e.g. 31 164 units were collected from Canadian shorelines in 2019 through the Great Canadian Shoreline Cleanup). Checkout bags have been identified by experts as posing a threat of entanglement, ingestion and habitat disruption among marine wildlife;”*

OBJECTION (16):

Note that the 2019 Great Canadian Shoreline Cleanup (GCSC) claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers. In this context 31,164 plastic bags collected does not seem like much. Furthermore, the plastic bags collected are not differentiated, that is besides checkout bags; sandwich bags, Ziploc bags, garbage bags, and other utility bags also were counted in this number. It is reasonable to assume that since checkout bags comprise of less than 50% of all the plastic bags distributed in Canada, that less than 50% of the bags collected were checkout bags.

It is dishonest to claim prevalence in the environment based on the litter data from the 2019 GCSC.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Cutlery (knives, forks, spoons, sporks and chopsticks). These items are typically given to customers by restaurants and other food vendors to eat quick-service or takeout food, though they can also be purchased in bulk at many retail businesses such as grocery or dollar stores. They are typically (but not exclusively) made from polypropylene or polystyrene. SUP cutlery have low recycling rates (estimated at close to 0%) and are typically not accepted in provincial or municipal recycling systems. They are common forms of plastic litter (e.g. 10 772*

units were collected from Canadian shorelines in 2019 through the Great Canadian Shoreline Cleanup). Cutlery litter has been ranked as high by experts in terms of the threat posed to wildlife;”

OBJECTION (17):

Single use cutlery is made from easily recyclable plastics. If the recycling rate is truly low for these items, it is because they are not being collected, sorted, and processed. Simply put, if a jurisdiction decides that it doesn't want to collect something for recycling, it stops being recycled, even if it is easy enough to do. This is the fault of the jurisdiction, not the item.

It is worth noting that the 2019 Great Canadian Shoreline Cleanup claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers. In this context 10,772 pieces (0.67% unit/unit) of plastic cutlery collected does not seem like much.

It is unclear who the experts were who were responsible for ranking single use cutlery. This is an appeal to an unknown authority and as such is worthless to prove anything.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Foodservice ware made from or containing problematic plastics. This category includes clamshell containers, lidded containers, cartons, cups, plates and bowls used for serving or transporting prepared food or beverages (i.e. that is ready to be consumed without any further preparation, such as cooking, boiling or heating). This category of SUPs only includes those made from extruded or expanded polystyrene foam, polyvinyl chloride, oxo-degradable plastics, or that contain the additive “carbon black.” When littered in the environment, foodservice ware may be placed in a range of categories, depending on the kind of plastic used (e.g. expected to form part of the total units collected under the categories of foam [24 213 units], food wrappers/containers [74 224 units], or tiny pieces of plastic or foam [595 227 units] in the 2019 Great Canadian Shoreline Cleanup). Foodservice ware in the form of expanded polystyrene containers, takeout containers, cups and plates and plastic food lids have all been ranked as high by experts in terms of the threat posed to wildlife;”*

OBJECTION (18):

This is the first that we have heard of plastics containing “carbon black” as being a problem. This regulatory impact analysis does not give any justification for why carbon black is problematic. This is arbitrary and unfair and as such is in contravention of section 2 of CEPA 1999.

Both foamed polystyrene and polyvinyl chloride (a.k.a. PVC or vinyl) has been discussed very briefly in some of the prior documents issued by the ministers, however it has not been explained anywhere in the issued documents how expanded polystyrene or PVC food service items are “problematic”. Because this was never explained or evaluated properly, this is arbitrary and unfair contrary to CEPA 1999 section 2(o).

It is unclear who the experts were who were responsible for ranking foodservice ware. This is an appeal to an unknown authority and as such is worthless to prove anything.

The proposed ban may replace materials that the recycling industry, municipalities and consumers are learning how to cope with and use properly and potentially replace these with materials that may require new systems and accommodations for, but the Government has not clearly shown that it has considered this possibility.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

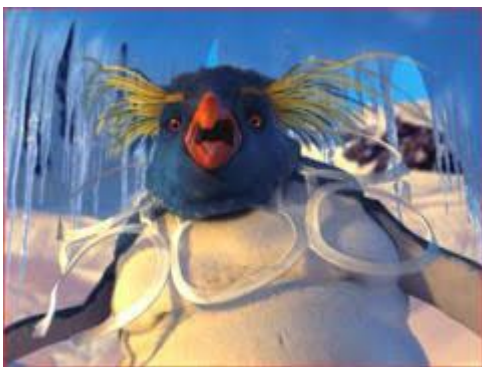
- *“Ring carriers (typically known as six-pack rings). Ring carriers are deformable bands that are placed on beverage containers (e.g. cans, bottles) to package them for transport. They can be cut to hold different multiples of containers (e.g. two-packs, eight-packs). They are typically made from low-density polyethylene. Ring carriers are not typically recycled in Canada and are not accepted by provincial or municipal recycling systems. Ring carriers are a common form of plastic litter (e.g. 1 627 units collected from Canadian shorelines in 2019 through the Great Canadian Shoreline Cleanup) and are recognized as posing a threat of entanglement for wildlife such as seabirds;”*

OBJECTION (19):

It is incorrect that ring carriers are not accepted for recycling. Soft plastic ring carriers (6 pack versions) are accepted in British Columbia in the category of plastic film, which is collected at regional recycling depots. Hard plastic injection molded rings are accepted in curbside collection. They both are then recycled, probably at close to the same rate as plastic bags, which is 15%.

While anecdotally we have heard of these items entangling wildlife, the use of ring packs in Canada infrequent, (Table 1 shows ring carriers at 0.6% of all the proposed banned SUPs) and it is infrequent to see them in litter. The occurrence of Canadian wildlife becoming entangled ring carriers has not been demonstrated. It is worth noting that the 2019 Great Canadian Shoreline Cleanup claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers, and still only 1627 (0.1%) items were ring carriers. The ban therefor seems to be a hammer to kill a gnat that might not even exist.

Public perception of the harm caused by ring carriers is significantly affected by mainstream media.



(“Happy Feet” ©2006 Warner Bros. Entertainment Inc.)

This effectively becomes propaganda whether it is intentional or not. In the public's mind plastic pollution and especially the harm caused by ring carriers become more real when they watch movies and television even when the depiction being watched is completely fictional and a work of computer animation, not even depicting live animals. A movie released 16 years ago and seen by millions of then 4- to 12-year-olds is likely to significantly affect the opinions of those children as they now enter adulthood.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Stir sticks (also known as stirrers or beverage stirrers). Stir sticks are typically made from polypropylene or polystyrene. They can be in the shape of a stick, rod, or tube, and can also have decorative elements (e.g. for cocktail stir sticks or muddlers) or have attachments to close coffee cup lids. They have very low or no recycling rates and are not typically accepted in provincial or municipal recycling systems. Stir sticks are found as litter in the environment. They are typically categorized alongside straws (e.g. stir sticks would form part of the 26 157 units collected in 2019 through the Great Canadian Shoreline Cleanup referenced below for straws). Stir sticks pose the same threats to wildlife as straws; and”*

OBJECTION (20):

Stir sticks are made from easily recyclable plastics. If the recycling rate is truly low for these items, it is because they are not being collected, sorted, and processed.

The 2019 Great Canadian Shoreline Cleanup claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers. In this context 26,157 (1.67% unit/unit) stir sticks and straws collected does not seem like much. This does not hit the threshold of environmentally prevalent, that is widespread and frequent distribution.

REFERENCE:

Background

Government action with respect to single-use plastic manufactured items

- *“Straws. Straws are typically given to customers at restaurants, coffee shops and other food vendors along with purchased drinks. They are typically (but not exclusively) made from polypropylene and have varying physical dimensions. They may also be sold in packages of multiple straws at retail locations such as grocery stores and dollar stores, or may be packaged with another product (e.g. a juice box). Plastic straws are prevalent in litter data (e.g. 26 157 units of straws and stir sticks collected in Canada in 2019 through the Great Canadian Shoreline Cleanup). They have low or nil recycling rates due to their size and shape and are not typically accepted in provincial or municipal recycling systems. Straws are also ranked high by experts in terms of the threat posed to wildlife in the environment.”*

OBJECTION (21):

Plastic straws are made from easily recyclable plastics. If the recycling rate is truly low for these items, it is because they are not being collected, sorted, and processed.

It is unclear who the experts were who were responsible for ranking plastic straws. This is an appeal to an unknown authority and as such is worthless to prove anything.

As noted above, the 2019 GCSC collected over 1.6 million items. Straws were not a big part of the count. Prevalence is not demonstrated when 83,000 volunteers are required to find 26,000 straws and stir sticks.

REFERENCES:

Background

Lifecycle of plastic manufactured items in the Canadian economy

“Of the 3.3 million tonnes of plastic waste generated nationally in 2016, 2.8 million tonnes (86%) were landfilled, 300 000 tonnes (9%) were recycled, 137 000 tonnes (4%) were incinerated with, or without, energy recovery, and 29 000 tonnes (1%) became plastic pollution, of which 2 500 tonnes were marine plastic pollution. Using those numbers, Canadians produced around 800 grams of plastic pollution per capita in 2016.”

Background

Distribution among the six categories of SUPs

“As shown in Table 1, the six categories of SUPs accounted for just over \$750 million in sales in 2019, or nearly 30 billion units sold. Per capita per day, these values translate to approximately \$0.06 in sales and 2.2 units sold. Assuming that each unit sold fulfilled its single use in short order following its sale, the mass of each unit sold promptly became plastic waste. The six categories of SUPs subject to the proposed regulations represent an estimated 160 000 tonnes sold in 2019, or an estimated 5% of the total plastic waste generated in Canada in 2019.”

OBJECTION (22):

If the numbers presented are to be assumed to be somewhat reliable, and if one were to believe that plastics pollution was a significant problem warranting national action and a toxic designation, then it seems rather feeble to act on only about 5% of the potential pollution? This calls to question the intent of the regulation. Is it to reduce or mitigate plastic pollution, or is it intended to be symbolic?

OBJECTION (23):

This document frequently cites estimates of the amount of plastic waste and plastic pollution generated and treats them as proven facts. At the very least it is naïve to lean on these estimates so heavily, but it calls into question the integrity of the process when the Government does not address the issue of the uncertainty of these estimates. The Government does not really know the extent of the supposed problem that they intend to correct and must admit as much.

RATIONALE (23):

The government is aware of the inherent inaccuracy in all estimates of plastic pollution, having cited:

Julien Boucher and Guillaume Billard (2019). The challenges of measuring plastic pollution. The journal of field actions special issue 19, p. 68-75. Available at <https://journals.openedition.org/factsreports/5319>

Because the hard factual data on the extent of current plastic pollution is so lacking, it stands to reason that the determination if an improvement is made through regulation will be subject to the same errors. A cynical person could then argue that the results of the proposed regulations will initially be a success because the people making the estimates want it to be, and so do the members of the Government who put these regulations in place.

REFERENCE:

Background

Lifecycle of plastic manufactured items in the Canadian economy

“Once plastic pollution reaches oceans, the majority will slowly weather and fragment into microplastics, accumulate on shorelines, sink to the seabed, or float on the sea surface, but will never fully decompose.”

OBJECTION (24):

The use of the word “never” is an exaggeration. Scientifically it is not known with certainty that a particular plastic item will never fully decompose because we have not had plastic items in the environment for thousands of years. While decomposition may be so slow for some plastic items (ones that are formulated to resist degradation) others will tend to decompose in a matter of a couple years, or in the case of biodegradable plastics in a few months, so a statement that they will “never fully decompose” is dishonest.

REFERENCE:

Background

Distribution among the six categories of SUPs

“In Canada, some major companies have announced or have already implemented actions to reduce certain SUPs. For example, certain companies in the quick-service restaurant industry, including A&W^{footnote15} and Tim Hortons, ^{footnote16} have already eliminated SUP straws and other SUPs in their Canadian establishments. In 2018, Recipe Unlimited, which operates 19 national restaurant chains such as Swiss Chalet and Harvey’s, committed to eliminating all SUP straws from their restaurants. ^{footnote17} In the retail space, Canadian grocery chain Sobeys eliminated SUP checkout bags from their stores as of January 2020. ^{footnote18} Despite these voluntary actions from some Canadian companies to reduce plastic waste in their establishments, consumption of the six categories of SUPs nationally is still projected to grow at a positive rate for the next decade and beyond in the absence of interventions.”

OBJECTION (25):

It is improper for the Government to promote the actions of certain Canadian businesses. No mention by name should be made of any business in this impact statement. Holding up the actions of particular businesses and not mentioning others could be seen as unfair and possibly in contravention of ethical standards.

REFERENCE:

Background

Select Canadian Market Characteristics

Substitutes to the six categories of SUPs

(whole section)

OBJECTION (26):

As frequently noted regarding this RIAS, the estimates in Table 2 are quoted to up to 6 significant digits of precision, implying that the Government knows what these values really are, when in fact these are estimates that likely are within a few percentage points either higher or lower. This is dishonest reporting. An estimate is not a fact and should not be treated as a fact.

The conclusion that the reader gains from reading this section is that the alternatives to the six single-use plastic items that the government would like to ban are being adopted in preference to those six SUP items. This begs the question, if this is a change that is taking place organically within the current regulatory context, why “rock the boat”?

The suppliers of the six SUP items that the Government intends to ban are making efforts to innovate so that their products are better for the environment, in the sense that they are using more recycled content and more recyclable materials as well as better production techniques that use less energy. When the Government steps in with regulation, innovation to make things better is curtailed and replaced with innovation to make things

compliant with regulations. Compliance with regulations does not necessarily mean better for the environment and has an even lower probability of being optimal for the environment.

REFERENCE:

Background

Public opinion research and considerations regarding the COVID-19 pandemic

(whole section)

OBJECTION (27):

Polling is not an effective way to determine how to set good public policy. Otherwise, we would have a bankrupt country since nobody would agree that they want to pay as much tax as they have to.

The polling data shows that it takes relatively little for people to change their opinions about the so called “plastic pollution crisis” since the 2020 and 2018 polling results were so significantly different. The COVID pandemic may have been big new in of itself but tended to divert attention from critical thought on interactions with plastics etc. so should there is reason to be surprised that as many people responded as they did.

Since the first poll was conducted in 2018, it begs the question, who commissioned the poll and if it was the Government, what was the intent of the poll? Polling results should not have driven a political decision to first announce action of plastic pollution, then commission the Science Assessment to show plastic pollution is harmful (that is starting with the conclusion, and finding data to support it), and then finally adding all “plastic manufactured items” to schedule 1 of CEPA 1999.

Poll results commissioned by Oceana and other activist groups need to be taken with considerable caution, just as polls commissioned by industry are frequently questioned by activists. We know that public opinion is easily manipulated, and people responding to polls sub-consciously pick up on the answers that the person administering the questions would like to hear. Reading a description of the work of Oceana and the harm that Oceana believes that plastic does to the environment to a person prior to answering poll questions would be sufficient for many people to agree that all plastic manufacturing should be forever outlawed. In the same way if people were read a statement on the benefits of plastic manufacturing to Canadians and the Canadian environment, they would agree to a ban on all anti-plastic activist groups. Poll results are routinely tainted and many times wrong.

Interestingly, ***“While there are some environmental and value-recovery challenges associated with single-use PPE, the Framework in the Discussion Paper does not characterize single-use PPE as “harmful,” given that it serves a vital function that is necessary to keep Canadians safe.”*** This is a substantial step back from the assertion that all “plastic manufactured items” are toxic. When a substance is put on Schedule 1 it means that it is inherently toxic, not toxic only in some situations and certainly not toxic depending on how we feel about it according to polling.

REFERENCE:

Objective

“The objective of the proposed Single-Use Plastics Prohibition Regulations (the proposed Regulations) is to prevent plastic pollution by eliminating or restricting the manufacture, import, and sale of six categories of SUPs that pose a threat to the environment.”

OBJECTION (28):

The stated objective of the proposed regulation is “to prevent plastic pollution” but very little evidence is presented to indicate that prevention of “plastic pollution” will be achieved. There may be some reduction in the use of plastic items, but this is not clearly an authorized objective under CEPA 1999. The estimated reduction in plastic pollution or litter per this RIAS would be a small portion (about 5%) of the overall estimated amount of plastic litter even using the unreliable estimates presented in this RIAS. In the likely event that the litter and pollution estimates are substantially incorrect, the reduction in pollution annually could be negligible.

When the words “prevent plastic pollution” are used, one would naturally assume that all or at least a significant portion of the plastic pollution the Government advises us exists would be addressed. This is not the case. Rather the Government is expecting Canadians to be satisfied with an effort that leaves real problems such as “ghost gear” un-addressed, telling us that we should be happier because they have done something that could reduce litter by 5%.

It seems that the Government is expecting that Canadians will say to themselves when they go to a beach or park “Wow this place has 5% less litter than it did last time I was here! That’s such an impressive improvement. Let’s get the Government to ban more stuff!” The reality is that they will not be able to tell the difference and if patterns repeat, Government will do an inadequate job at collecting data, but still may declare everything to be a success.

It is inappropriate for the Government to be discussing in this RIAS as much as it does that “plastic waste” will be reduced. The reduction of waste or management of waste is not under the regulatory authority of CEPA 1999. For other substances it seems doubtful that the Government would spend as much time pointing out the benefits of reduced waste management costs when a truly toxic substance is intended to be banned. Because the Government seems to want to give itself the authority to manage waste it takes this regulatory approach. If this was not the true regulatory objective, the regulation of plastics that are supposedly “problematic to recycle” would not be raised as much as it is, because problematic or not problematic to recycle has nothing to do with the amount of plastic litter or pollution that could be generated.

Effectively the objective of this regulation appears to be to impact the lives of Canadians, disrupt Canadian industries, and do as little as possible to improve the environment “by eliminating or restricting the manufacture, import, and sale of six categories of SUPs”

REFERENCE:

Description

“The proposed Regulations would eliminate or restrict six categories of SUPs in Canada. The proposed Regulations would be made pursuant to section 93 of CEPA, following the addition of “plastic manufactured items” to Schedule 1 to CEPA.”

OBJECTION (29):

“Plastic manufactured item” itself needs to be defined for the purposes of this regulation. The reason being that it needs to be well understood legally what a plastic is in the context of this regulation.

Many materials found in nature are natural polymers, such as the cellulose which is the primary constituent of paper and wood. Polymers as a type of molecule, are constituents in all types of plastics. Therefore, it could be argued in the absence of a clear definition, that wood and paper items are also “plastic manufactured items” and subject to these regulations as well.

REFERENCE:

Description

Applicability

“The proposed Regulations would apply to the following categories of plastic items:

SUP checkout bags, which are plastic manufactured items formed in the shape of a bag that are designed to carry purchased goods from a business, typically given to a customer at the retail point of sale;”

OBJECTION (30):

While the regulation is intended to place a ban on single-use plastic checkout bags, which an ordinary citizen would assume to be the plastic bags that purchased items are placed in at the time a purchase is completed at among others, grocery or convenience stores, the definition in the proposed regulation does not clearly state this.

As written, this regulation could be applied very broadly to include the use of plastic bags for all pre-packaged items sold in a retail environment. For example, if a person went to a grocery store and purchased a single pre-packaged bag of frozen French fries, the store would be in violation of the regulation since the bag was clearly designed and intended to be used to carry purchased French fries from the business to the consumer’s home and the bag would not meet any of the performance requirements in Table 3.

Is the intent of this regulation to require that frozen French fries in Canada be sold in different packaging? If so, then it should be clearly stated that it is, or if it is not, then this definition needs to be revised to clearly state that pre-packaged items are excluded.

OBJECTION (31):

Whether a bag is made from a plastic film is irrelevant, since there has been no argument made that plastic film is more environmentally harmful than fabric made from either natural or synthetic materials. The definition of a single-use plastic bag should focus on what is “single-use” after we determine what “plastic” is, not how it is made.

OBJECTION (32):

The performance requirements are unclear and arbitrary. There is no scientific basis for the performance requirements.

a) There are no existing test methods for these performance requirements, so test labs would be put in a difficult position to develop a method, including determining repeatability and reproducibility within a very short time. If multiple labs are developing methods in parallel, the consistency between these methods will be low.

b) There was no apparent consultation on what the performance requirements would be. It seems that the performance requirements were intentionally set unrealistically high. One must ask, what weight of purchased items would a typical person carry in a bag for 53 meters? Realistically not 10 kg, more likely the limit would be about 5. If a person has more than 5 kilograms of items, they will likely want to use multiple bags, and use a cart or buggy to cover the bulk of the distance.

c) There is no consideration of the carrying volume in the regulation. This results in smaller re-usable bags being banned, even though they would be more convenient for consumers and have greater potential to get to a breakeven point in terms of Life Cycle Analysis when compared to the currently used plastic bags.

A better approach would be for an international consensus standard (CSA or ASTM) to be developed for performance tests if they are required, since there are obviously many issues that the ministers have not addressed in the draft regulation with regard to testing.

OBJECTION (33):

The performance requirement for what is and is not a single-use checkout bag are paternalistic toward consumers. As soon as retailers started to routinely charge a fee for checkout bags, consumers used fewer of them. If a bag purchase fee becomes more “significant” consumers will demand that the bags be durable enough to be reused multiple times and even fewer bags will be used. Consumers will decide what the optimal balance of cost and durability is.

The current bags are very much re-usable as they are. It is becoming more frequent for shoppers to pull out used “single-use” bags when shopping. Many bags are currently reused for other tasks around the home. A very common use is for collecting household trash. Other uses include as lunch bags for children, holding dirty shoes from sports activities, holding wet swimwear, etc.

REFERENCE:

Description

Applicability

“SUP cutlery, which encompasses plastic manufactured items formed in the shape of a knife, fork, spoon, spork, or chopstick;”

OBJECTION (34):

If this definition is intended to be for single-use plastic cutlery, it must mention that the forks, knives, spoons, sporks, or chopsticks are sold with the intent to be used by people to aid in the consumption of food. Otherwise, any plastic item that is in the approximate shape of a fork, knife or spoon would be subject to this regulation, even if there is no intent for it to be used to consume food.

REFERENCE:

Description

Applicability

“SUP foodservice ware made from or containing problematic plastics, which encompasses plastic manufactured items:

- *formed in the shape of a clamshell container, lidded container, box, cup, plate, or bowl,*
- *designed for serving or transporting food or beverage that is ready to be consumed without any further preparation, and*
- *made from or containing the following materials:*
 - *polystyrene foam, including expanded and extruded polystyrene,*
 - *polyvinyl chloride,*
 - *the additive “carbon black,” which is an additive used as a black colour pigment for plastic manufactured items that is produced through the partial or incomplete combustion of hydrocarbons, or*
 - *oxo-degradable plastics, which are plastic materials that include additives which, through oxidation, lead to the fragmentation of the plastic material into micro-fragments or to chemical decomposition;”*

OBJECTION (35):

There needs to be a clear definition of what “expanded polystyrene”, “extruded polystyrene”, “polyvinyl chloride”, “a plastic that contains a black pigment produced through the partial or incomplete combustion of hydrocarbons”,

and “a plastic that contains any additive that, through oxidation, leads to chemical decomposition or to the fragmentation of the plastic material into micro-fragments” are.

There are many ways to formulate plastics and to construct products. For example, recycled plastics could potentially be used for these food service items, and the recycled material could have low levels of polystyrene or PVC included un-intentionally. As well carbon black and additives that accelerate oxidation could also be unintentionally included and may not even be visible. There should be some consideration of what constitutes a significant amount of these materials and what is insignificant.

OBJECTION (36):

There has been no clear justification of why “expanded polystyrene”, “extruded polystyrene”, “polyvinyl chloride”, “a plastic that contains a black pigment produced through the partial or incomplete combustion of hydrocarbons”, and “a plastic that contains any additive that, through oxidation, leads to chemical decomposition or to the fragmentation of the plastic material into micro-fragments” are problematic.

If these items are problematic, there needs to be an avenue open for technical innovation to permit these materials to be used for these applications again if warranted.

REFERENCE:

Description

Applicability

“SUP ring carriers, which are plastic manufactured items formed in the shape of deformable container-surrounding bands, and that are designed to be applied to beverage containers and selectively severed to produce packages of two or more beverage containers;”

OBJECTION (37):

It is incorrect that ring carriers are not accepted for recycling. Soft plastic ring carriers (6 pack versions) are accepted in British Columbia in the category of plastic film, which is collected at regional recycling depots. Hard plastic injection molded rings are accepted in curbside collection. They both are then recycled, probably at close to the same rate as plastic bags, which is 15%.

While anecdotally we have heard of these items entangling wildlife, the use of ring carriers in Canada is infrequent, (Table 1 shows ring carriers at 0.6% of all the proposed banned SUPs) and it is infrequent to see them in litter. The occurrence of Canadian wildlife becoming entangled ring carriers has not been demonstrated. It is worth noting that the 2019 Great Canadian Shoreline Cleanup claims to have collected approximately 1.6 million items of trash with the assistance of over 83,000 volunteers, and still only 1627 (0.1%) items were ring carriers. A ban is a hammer to kill a gnat that might not even exist.

REFERENCE:

Description

Applicability

“SUP stir sticks, which are plastic manufactured items designed to stir or mix drinks, or to stop a drink from spilling out of a lid; and”

OBJECTION (38):

A re-usable plastic spoon could be argued to be a single-use stir stick by the wording of this definition, since spoons are used in fact designed and used to stir or mix beverages. This raises the question of which would prevail. It seems that this definition could be used for a de facto ban of plastic cutlery in all contexts.

Obviously if the ministers are going to ban single-use plastic stir sticks, the definition needs to be clear enough to describe what a stir stick looks like as opposed to a spoon, fork or knife. This definition is inadequate.

REFERENCE:

Description

Applicability

“SUP straws, which are plastic manufactured items formed in the shape of a drinking straw, including SUP flexible straws that have a corrugated section that allows the straw to bend and maintain its position at various angles.”

OBJECTION (39):

This definition needs to be clear what a “straw” is. It would be useful to state that it is intended to be used by people for consuming beverages and that it is typically a thin, hollow cylindrical tube between 100 and 500 mm long.

REFERENCE:

Description

Applicability

“The prohibitions in the proposed Regulations would include performance criteria for checkout bags, cutlery, and straws. Plastic checkout bags, plastic cutlery, and plastic straws are only considered single use if they meet the criteria in Table 3. There are no similar criteria for stir sticks, ring carriers, or foodservice ware made from or containing problematic plastics, as all products meeting the definition in the proposed Regulations are expected to be single use.”

OBJECTION (40):

The performance criteria mention “change of shape”:

There needs to be a clear definition of what “changes its shape” constitutes. Does warpage of the straw by less than 1 millimeter constitute a shape change? Will there be an amount of change of shape that is allowable?

OBJECTION (41):

It may be better to instead require that *“After immersion in water maintained at a temperature between 82°C and 86°C for 15 minutes, the primary length and width dimension of the cutlery being tested shall not change by more than 2% (or other more reasonable value) when measured at the same laboratory conditions as prior to exposure.”*

The word “exposure” should be replaced with a more definitive or descriptive term. For example, “immersion” is very clear that the item tested is in the water. Exposure does not make this clear.

OBJECTION (42):

There should be some guidance on sample size (number of specimens) to be tested and other test criteria. For example, if a manufacture produces plastic cutlery of different colors and configurations, with different trade designations and uses different raw materials there should be reasonable certainty that the tests are going to be

conducted the same way by labs working on enforcement as labs working for manufactures trying to determine if they comply.

OBJECTION (43):

For the performance requirements, the best approach would be for an international consensus standard test method (CSA or ASTM) to be developed since there are obviously many issue that the ministers have not addressed in the draft regulation about testing. Only if a properly developed standard test method has been published would then it be appropriate to set these sorts of standards. (See above comments)

REFERENCE:

Description

Applicability

“Tests to determine whether a product meets the criteria for single-use must be conducted by a laboratory accredited under ISO/IEC 17025 entitled General requirements for the competence of testing and calibration laboratories, by an accrediting body that is a signatory to the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement. Alternatively, certification can be provided by a lab accredited under the Quebec Environmental Quality Act.”

OBJECTION (44):

There are no standard test methods in existence to perform the testing required. The ministers have so far not initiated any projects with standards development bodies to develop standardized test methods. The ministers have not even demonstrated that they have completed a review of what other jurisdictions do for analysis to settle the question of whether an item is single-use or not.

This is too important to leave to *“the analysis must be performed in accordance with standards of good scientific practice that are generally accepted at the time that it is performed.”* The reason is that the arbiter of what *“good scientific practice”* is will likely be the ministers and if there is vigorous disagreement, the courts.

Keeping in mind that section 2(o) of CEPA 1999 requires that the ministers *“apply and enforce this Act in a fair, predictable and consistent manner.”* to leave testing to be done in this way cannot be permitted. Fair, predictable and consistent means that if performance requirements must be mandated, they have to be well thought out and proven, not put together in a rush without even figuring out if the proposed tests are practical.

For the businesses affected by the outcomes of testing and analysis, the financial risks can be in the millions of dollars and could even potentially bankrupt some businesses. Do the ministers appreciate the seriousness of the impacts that their decisions could have on affected persons or businesses?

Have the ministers considered that a regulatory statement such as:

“(b) will break or tear if it is used to carry 10 kg over a distance of 53 m 100 times;”

leaves many questions that need to be resolved in order for the analysis and testing to be conducted?

For discussion:

- How many specimens must be tested per sample?
- How is the sample collected?
- How frequently are samples collected and tested?
- What is the temperature and humidity of the test lab where the tests will be conducted?
- Do the specimens need to be conditioned to a certain temperature and humidity?

- What is the shape of the 10-kilogram weight to be used for testing?
- What is the 10-kilogram mass permitted to be made of?
- What dimensions will the 10 kg mass have?
- When the 10 kg mass is put in the bag, is it dropped in or slowly lowered in?
- When the 10 kg mass is removed from the bag, is it flipped out or carefully lifted out?
- What is the shape of the standard “hand” that will be used to carry the bag?
- How much side-to-side swinging is permitted while the mass is being carried in the bag?
- How much vertical (up and down) motion is permitted while the bag is being carried?
- How much time is the standard 53-meter walk to take?
- What is the permitted acceleration and deceleration for the start and stop of the 53-meter walks?
- What is a “break” defined as? (what happens?)
- What is a “tear” defined as? (how big?)
- What are the plus or minus tolerances on all the above testing parameters?
- Is it permissible to have a machine to do the testing as opposed to a human?
- Is it safe to have a human perform this test?
- What other safety considerations are needed?
- Can round-robin testing be done to determine the repeatability and reproducibility of the results?

The point of this is that using good scientific practice, it is possible to design a test where virtually every bag submitted will fail, or to design a test that a reasonable number of bags tested will pass. Making the above test difficult to pass is easy, just specify that the 10 kg mass needs to be made from hardened steel with at least 4 sharpened spikes extending at least 2 cm from the body of the mass, equidistant from each other and then require that the person carrying the bag needs to place the mass in the bag, travel the 53 meters and remove the mass from the bag in 60 to 70 seconds. All of this would qualify as “good scientific practice” but it would be completely unfair.

If the Government persists in proceeding with implementation of the regulation, there needs to be an appeal process for analysis results. If the producer of an item subject to analysis, has results from a qualified and accredited lab that disagree with results from a lab that the Government has contracted, there needs to be a mechanism for resolving this disagreement. And it cannot be “we are the Government, so we are right.”

In conclusion for this comment, the ministers should not issue a twenty-word test requirement with no standardized method to back it up that could potentially disrupt business worth \$280,000,000. (See Table 2 of the RIAS for checkout bags). There is nothing that is fair, predictable, or consistent about this.

REFERENCE:

Description

Prohibitions and exceptions

Prohibitions and exceptions for single-use plastic items except plastic straws

“The proposed Regulations would prohibit the manufacture, import, and sale of the categories of SUPs described in the previous subsection (with the exception of straws, described in the subsection below). Manufacture, import, and sale for the purposes of export would not be subject to the prohibition.”

OBJECTION (45):

This Regulatory Impact Analysis (RIAS) holds out the faint hope to the Canadian plastics industry that we can continue in business by exporting our product overseas.

If single-use plastic items are such a scourge to nature, why then is the government permitting these items to be exported to ostensibly jurisdictions with fewer controls on pollution than Canada? Maybe because they are not as big a problem as the government claims they are? Or is it because this is a trap for the plastics industry, where we export more to the rest of the world and then the Canadian plastics industry and its linked petrochemical industries would be labeled as “imperialist” or “colonialist” and is thereby worthy of being “cancelled.”

It is disingenuous to on one hand claim that the companies potentially affected by this regulation can increase their efforts to export their products and then a little later in the RIAS, note that there are a significant number of other countries that are regulating single-use plastics. The export market is not going to be growing strongly if this is the case.

This seems to be an effort to avoid compensating Canadian businesses and workers for lost jobs and lost businesses. The RIAS claims that there will be a relatively small number of businesses impacted. It spends time on the “*emotional and mental well-being*” of people visiting public spaces which supposedly have been affected by plastic pollution but does not look at the emotional wellbeing of Canadian workers who may be affected by the proposed regulation.

If emotional wellbeing is important, where is this RIAS is the impact of possible unemployment, loss of businesses, disruption in lives and all the other effects on businesses and workers discussed? Doesn’t the emotional (and physical and economic) wellbeing of those Canadians count for something?

REFERENCE:

Description

Prohibitions and exceptions

Prohibitions and exceptions for plastic straws

“The proposed Regulations would prohibit the manufacture, import, and sale of SUP straws, including straws packaged with other items such as drink boxes, as well as SUP flexible straws in any commercial, industrial, or institutional setting, except for the following activities:

- *the manufacture and import of flexible plastic straws that are sold or offered for sale in packages of multiple straws, where a “flexible” plastic straw has a corrugated section that allows the straw to bend and maintain its position at various angles;*
- *the manufacture and import of any kind of plastic straw intended for export;*
- *the sale of flexible plastic straws to hospitals, medical facilities, long-term care facilities, and other care institutions, including the offering of SUP flexible straws to patients or residents of any of these institutions; and*
- *the sale of packages of 20 or more flexible plastic straws in retail stores, on the condition that the straws are not kept on public display (though businesses may advertise that straws are available for purchase) and are provided only if requested by the customer (who can be any individual).”*

OBJECTION (46):

There is no scientific or other reason why for retail sales, flexible drinking straws need to be offered for sale by request only, and not displayed for the customer to see the package. This type of restriction may be appropriate for tobacco products but seems to be rather excessive for drinking straws since the minors should still be allowed to use and purchase drinking straws. The intent of this section of the regulation seems to be to make it more

expensive and difficult for retailers to sell flexible straws. This expense will tend to be passed down to consumers who will still use straws.

OBJECTION (47):

Restaurants (and other businesses offering beverages for sale for immediate consumption) should be permitted to give (sell) patrons single-use flexible plastic straw when a patron requests one. If it is reasonable that an individual citizen could purchase straws for their own use, then it is reasonable that restaurants should be able to provide the same level of service from their establishments.

REFERENCE:

Description

Record keeping

“Any person that manufactures or imports any of the six categories of SUPs for export must keep records providing written evidence that the SUP has been or will be exported. Records and supporting documents must be kept for at least five years after they are made.”

OBJECTION (48):

It seems reasonable that if the ministers would regulate this industry, that they also be required to keep some records themselves and to make those records available to industry.

It may be argued that the ministers are not going to have many records to be generated, however according to the Regulatory Impact Analysis Statement (RIAS), the claim is made that *“The Government of Canada will continue to draw from a range of evidence sources to monitor environmental effects and follow-up on the state of knowledge with regard to the relative environmental effects of SUPs and their substitutes.”* (see the Follow-Up and Monitoring section of the RIAS.) It is important that the government follow through with this commitment to look at the relative environmental effects of SUPs and their substitutes. This data should be made available to Canadians in general, and the plastics industry in particular.

The Government also should retain records of efforts to ensure compliance. The plastics industry should be entitled to review information about the labs contracted by the Government to perform analysis on any manufactured item the government intends to regulate. For instance, the principal investigators at the lab should be named, as well as the details of test procedures followed and of any instruments used. In the interest of privacy and fair competition, the public release of results linked to a named company must not be made.

REFERENCE:

Description

Coming into force

“The proposed Regulations would come into force one year after their registration, with the exception of prohibitions on sale for checkout bags, cutlery, foodservice ware made from problematic plastics, ring carriers, and stir sticks, which would come into force two years after registration.”

OBJECTION (49):

Preferably this regulation never comes into force. It is bad for Canadians, bad for the environment and bad for Canadian businesses.

That said, if this regulation is to come into force at some point, it should be only after all the test methodologies required for the determination of what is a re-usable item are fully worked out. Preferably after one of more standards development bodies have approved and published applicable performance standards.

Furthermore, since there are great promises that are being made about how necessary this regulation is for decreasing pollution and plastic pollution in particular, but there is a great deal of uncertainty in the projections made and in the science behind those projections, this regulation should have a “sunset clause” whereby automatically this regulation passes out of force if it is not renewed within two years of coming into full force.

If this regulation is to be renewed, it should only be renewed when evidence of its effectiveness at reducing overall pollution to the environment clearly is demonstrated by data, not opinion or speculation. Considering the size of the overall plastics industry, and the size of the portion of that industry this regulation would affect, it seems reasonable not to have a regulation that will remain forever in force when it does not meet its stated objective, and especially if it were to make the environment worse for Canadians.

REFERENCE:

Description

Consequential amendments to other regulations under CEPA

“Consequential amendments are needed to the Regulations Designating Regulatory Provisions for Purposes of Enforcement (Canadian Environmental Protection Act, 1999) [the Designation Regulations], which designate various provisions made pursuant to CEPA as being subject to the fine regime under the Environmental Enforcement Act. Specifically, any regulatory provisions listed in the Schedule to the Designation Regulations are subject to a minimum fine and higher maximum fines, should there be a successful prosecution of an offence involving harm or risk of harm to the environment, or obstruction of authority. ^{footnote23} Amendments are needed to include the proposed Regulations in the Schedule to the Designation Regulations.”

OBJECTION (50):

Ordinary Canadians can easily find themselves in contravention of this regulation as written. There needs to be greater clarity that this regulation will not be used to punish Canadians who unintentionally violate some of its provisions. (De minimis non curat lex) For this reason significant changes need to be made to the proposed regulation, or it should be completely scrapped and something else done.

For example, it seems that if a Canadian decides to start up a small business hand fabricating and selling re-usable cloth bags made primarily of synthetic fibers, that they could be in violation of this regulation, since there is no way that they can afford to pay for an accredited lab to test the performance of their bags. At some threshold there is no value in any enforcement action other than to exasperate people.

REFERENCE:

Regulatory development

Consultation

(general comments are made regarding the whole section)

OBJECTION (51):

Considering that the Government could reasonably expect that many companies in the Canadian plastics industry would have concerns with the addition of “plastic manufactured items” to Schedule 1 of CEPA 1999, it seems

unusual that notifications were only sent out to “over 6000 stakeholders” which apparently included very few Canadian plastics industry businesses. It also seems ironic that less than 25% of the stakeholders invited participated in the webinars.

While it is interesting to see the breakdown of support or opposition by the various individual stakeholders or stakeholder groups, Tables 4 and 5 should not be used as gauges of popular opinion about the proposed regulations.

Given that the Government appeared to have made an effort to contact as many non-governmental organizations also known as “civil society” groups or environmental activist groups as possible some of the comments coming out of the consultation are expected, for example that the government needs to ban even more plastic items. There is some level of audacity to want to extend bans to more items even before the Government has determined how it will regulate the six SUP items it has selected for a ban.

There does not appear to have been consultation with a broadly representative cross-section of Canadian society since this RIAS notes that virtually every Canadian will be affected by the proposed regulation if it comes into force. To the contrary consultation appears to have been heavily weighted toward the environmental activist groups and the industry representatives who were able to find out what was going on. It is unknown how local governments became interested in the proposal, but one could speculate the environmental activist groups who know sympathetic local governments encouraged their participation. As such the consultation on this far-reaching regulation has been completely inadequate.

REFERENCE:

Regulatory development

Instrument choice

*“The Prime Minister’s announcement and subsequent Mandate Letter to the Minister of the Environment in 2019, followed by the 2020 Speech from the Throne, set a commitment for the Government of Canada to **ban** harmful SUPs, where supported and warranted by science. This commitment was reiterated in October 2020 with the publication of the Discussion paper, which described the Government of Canada’s management framework for SUPs. This framework supports the above-mentioned commitment, as well as the Government of Canada’s comprehensive plan to achieve zero plastic waste. It established a three-step process for*

- *determining the need for particular SUPs to be managed;*
- *determining the management objective that should be assigned to particular SUPs; and*
- *choosing the most appropriate instrument to achieve management objectives.”*

...

“The third step of the framework was to select policy instruments informed by the Department’s Instrument Choice Framework for Risk Management under CEPA. Under this framework, instruments are chosen based on several criteria, including the following:

- *environmental effectiveness and achievement of the management objective;*
- *maximization of benefits and minimization of costs;*
- *distributional impacts on groups and segments of society;*
- *stakeholder acceptability and compatibility with other programs in Canadian jurisdictions; and*
- *meeting international obligations, including international protocols, agreements, and trade obligations.*

Potential instruments identified under the framework include bans and restrictions on use, incentives to encourage the use of reusable products or systems, material specifications (e.g. recyclability rules or guidelines), and extended producer responsibility or other collection and recycling requirements.”

OBJECTION (52):

It is rather convenient that the regulatory instrument choice matched what the Prime Minister had originally announced back in 2019. A cynical person would speculate that very little time was spent considering other potential instruments such as a \$0.02 per unit tax on certain SUP items that would be collected at the retail outlet.

A retail tax of just \$0.02 per SUP unit would raise close to \$250 million a year for the Government to compensate companies as they transition away from producing SUP items, to spend on efforts to clean up pollution of all sorts (plastic or otherwise) and to allocate to research that generates more realistic data on environmental pollution. The additional cost (if made visible to consumers) will incentivize transition to re-usable items and would not interfere with local governments implementation of regional bans or additional waste taxes. It would also give industry a “soft landing” as demand gradually decreases instead of being forced out of business in a single year.

There is no evidence that bans will be effective, will maximize benefits and minimize costs, will not unfairly burden segments of society, are more acceptable to all stakeholders, are compatible with other programs in Canadian jurisdictions, or meet international obligations better.

Since this RIAS does not give any detail about what other schemes were considered, nor were Canadians consulted with proposed instruments that they would prefer (as noted above stakeholder acceptability is required for CEPA 1999) the process for selection of the regulatory instrument was completely inadequate and potentially subject to motivations that where not in line with the requirements of CEPA 1999.

REFERENCE:

Regulatory development

Instrument choice

Table 6. Characterization of SUPs

Categories of single-use plastics	Criteria
Environmentally problematic	<ul style="list-style-type: none">• the SUP is prevalent in natural or urban environments, according to citizen science, civil society data, or municipal litter audit data• the SUP is known or suspected to cause environmental harm (e.g. risk of ingestion or entanglement by wildlife)
Value-recovery problematic	<ul style="list-style-type: none">• the SUP hampers recycling systems or wastewater treatment systems• the SUP has a low or very low recycling rate (i.e. lower than the average recycling rate for plastic packaging, from 0–22%)• barriers exist to increasing the recycling rate

OBJECTION (53):

These criteria are arbitrary and could easily be used to ban any material. “Citizen science” is typically synonymous with “activist opinion” (start with a conclusion, find the data to prove it) so is, if not completely unreliable, in need of corroboration.

As pointed out above there needs to be demonstrable environmental harm, not speculation about a potential un-quantified risk.

A seagull that subsists on human garbage is at risk of ingestion of entanglement in all sorts of waste materials, however we as a society have generally agreed that wildlife should not be subsisting on human garbage. Is it really environmental harmful when a gull that would not even be alive in a natural environment, chokes on garbage, when it lives by eating garbage? Obviously not, since a garbage dump is not a natural eco-system. But this is how many animals that are found with plastic in their intestines got it there. They raid human garbage for food, since the alternative is starvation.

Anything can “hamper recycling systems or wastewater treatment systems” Machinery breaks down in industry. This is caused by wear which is caused by doing stuff like sorting recycling.

The criteria for “low recycling rate” conflicts with what the Deloitte study says about the Canadian plastic industry recycling rate. In that Government sponsored study only 9% of all plastics were recycled, but now a <22% recycling rate (twice the reported industry average) is set as the criteria. The criteria are set so that hardly anything is OK. This is dishonest and unproductive.

Barriers exist to increasing the recycling rate. Like what?

As it happens for single use plastic food service items, we are told by the Government that some of them are acceptable and some of them are problematic. We are not told why. Canadians, and especially Canadian industry needs to be told why instead of being left guessing.

These criteria were not developed with proper consultation and input, appear to be arbitrary and therefore are not in conformance with CEPA 1999.

REFERENCE:

Regulatory Analysis

Benefits and costs

Quantifying the decrease in plastic waste (and associated increase in waste from substitution)

Baseline Scenario

“The database includes estimates for sales volume, average price per unit (as paid by the final retailer), and the average mass per unit across the six categories of SUPs and their main substitutes.”

OBJECTION (54):

If this analysis is intended to determine the actual cost to Canadians, it seems reasonable to perform cost calculations based on the estimated retail prices of the SUP items and their replacements. The final retailer must mark up the price of the goods in order to cover their costs, and to hopefully make some profit. The final retailer will generally be interested in making as much profit proportionally on both the SUP and non-SUP alternatives. They certainly would be opposed to losing money on selling alternatives to the SUPS.

It seems as if this may be a dishonest attempt to lower the calculated monetary cost of the proposed regulation.

REFERENCE:

Regulatory Analysis

Benefits and costs

Quantifying the decrease in plastic waste (and associated increase in waste from substitution)

Baseline Scenario

“There is great uncertainty as to what the lasting market impacts of the COVID-19 pandemic on the six categories of SUPs may be.”

OBJECTION (55):

I appreciate that the authors of this RIAS have used the word “uncertainty” here. Otherwise, the hubris of some of their subsequent statements would be so extreme that no one could take this document seriously. Unfortunately, besides the impact of COVID-19, there is uncertainty about a vast number of other factors as well. It is common for “unprecedented” things to happen. There are even precedented events that could take place such as massive economic shifts.

REFERENCE:

Regulatory Analysis

Benefits and costs

Quantifying the decrease in plastic waste (and associated increase in waste from substitution)

Incremental Change

“As depicted in Table 8, the proposed Regulations are expected to reduce the plastic waste generated by the six categories of SUPs by 153 761 tonnes in the first year of full policy stringency (2024) and by around 1.6 million tonnes over the analytical period (2023 to 2032).”

OBJECTION (56):

It is amazing that the authors of this RIAS can produce such precise numbers for the “estimated incremental change.” It seems as if the authors of this RIAS think that the reader can be fooled into believing that the authors know the future. It would be much more believable if the authors stated that plastic waste was expected to be reduced by 154 thousand tonnes ($\pm 15\%$) in 2024.

It should also be noted that while it is nice to look at the reduction in waste generated as a possible positive outcome of the proposed regulation, the CEPA 1999 is specific to protection of the environment and human health, not to waste management. As such the treatment of waste reduction as a primary outcome of this regulation is not in line with the stated purpose of this regulation. Properly managed waste disposal is not pollution.

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Reduced risk of injury or death to wildlife and improved habitat quality

“Most of the existing literature characterizes the harm from plastic pollution to wildlife and habitats in general, not specifically from SUPs, though conclusions regarding the former can be applied to the latter as SUPs are a common form of plastic pollution.”

Plastic waste that enters the environment as plastic pollution does not decompose easily, and represents a persistent risk of harm to wildlife and habitats throughout its lifetime. In the marine environment, plastics degrade slower than they do on land, and light-weight plastic pollution (such as SUPs) can float on the surface of waters for a long time before sinking. The buoyancy of light-weight plastic pollution makes it easy for it to be carried by currents from smaller bodies of water to oceans, where it can collect in floating garbage patches. Marine wildlife that encounters plastic pollution on the water's surface may sustain injuries or may mistake it for food."

OBJECTION (57):

While it is appreciated that the government acknowledges that most of the existing literature regarding harm from plastic pollution does not specifically address SUPs, it seems a bit convenient to assume that all plastic pollution is equally harmful. The Government has previously cited work that shows that different types or classes of litter/pollution in the marine environment (see footnote 11) have different ranking of harm. Apparently while plastic bags could be harmful, there are other items that could be significantly worse.

Chris Wilcox et al. (2016). Using expert elicitation to estimate the impacts of plastic pollution on marine wildlife. Marine Policy, 65, 107-114. Available at:

<https://www.sciencedirect.com/science/article/pii/S0308597X15002985>

This article ranks the effect of various items in the marine environment and comes to the conclusion that buoys, pots and traps are the worst, followed by monofilament, then fishing nets, and only after this, plastic bags and plastic cutlery. It isn't all the same. It isn't fair to claim that bags and cutlery are the same as nets and monofilament fishing line.

OBJECTION (58):

The so called "floating garbage patches" are an exaggeration. Public perception has been manipulated to cause some people to believe that in the Pacific Ocean there is an area that is hundreds of kilometers across that consists of a dense matt (items floating in contact with each other) of plastic litter. To the contrary, there is indeed plastic litter in the Pacific, and it is more concentrated in the gyres, but the concentration can be more properly described as high enough that a person at the surface could see two different pieces of litter at the same time. Alluding to "garbage patches" is dishonest and manipulative.

RATIONALE (58):

Ocean clean-up has taken 12 weeks to collect 28.6 tonnes of litter (claimed to be all be plastics) from the so-called garbage patch. If the garbage was as prevalent as we would be led to believe, it should have been possible to collect 28.6 tonnes of litter in a day, not 84 days. It should also be noted that the quantity of diesel fuel burnt by the two ships on the garbage collection mission exceeded the quantity of plastic collected.

<https://theoceancleanup.com/updates/successful-system-002-trial-validates-our-technology-and-launches-ongoing-great-pacific-garbage-patch-cleanup-operations/>

OBJECTION (59):

This second paragraph makes a lot of assertions and suppositions that are not backed up by data. For example, what is a "long time before sinking" or what is "does not decompose easily"? Have studies been done? Can literature be cited? Are there studies that specifically address the SUPS?

OBJECTION (60):

The remaining paragraphs in this section continue with additional conjecture about how harmful plastic pollution is. The authors of this section use the word “can” 15 times which gives an indication of their low willingness to make a claim to actual knowledge. Just because something is possible, it does not mean that it always happens or even frequently happens, it may rarely happen, and it may never happen.

What we would like to see are statements that summarize expected frequency or probabilities of these occurrences. Then we can weigh the value of the proposed regulation.

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Increased enjoyment of ecosystem goods and services

“Plastic pollution can also hinder the accessibility and functionality of public spaces and prevent residents and tourists from enjoying activities in a natural setting. Specifically, the presence of litter can have direct consequences on individuals’ physical and mental health. Visitors and workers can be susceptible to a range of injuries, such as cutting themselves on sharp plastics and being exposed to unsanitary items, ^(footnote 44) as well as to negative impacts on their emotional and mental well-being. ^(footnote 45) Refraining from participating in activities that ecosystems typically offer can also have health implications due to foregoing opportunities to obtain the positive impacts associated with such goods. Plastic pollution can also act as a barrier to accessing outdoor public spaces, such as boardwalks and parks.”

“A reduction in plastic pollution in public spaces may also provide considerable cultural or emotional gratification. Evidence shows that humans experience well-being in the knowledge that animals are present and will remain there for future generations. For example, “charismatic” marine organisms such as seabirds or turtles hold significant cultural and emotional importance to some individuals, which suggests that a reduction in marine plastic pollution that reduces the risk of harm to charismatic species may also induce improvements to human well-being. ^(footnote 46)”

OBJECTION (61):

Since the topics of mental health, emotional and mental wellbeing, emotional gratification, and emotional importance are being raised in the context of benefits resulting from this regulation, the Government also must consider the potential negative effects that the proposed regulation will have on the mental health and emotional wellbeing of Canadians. This has not been done.

Canadians who will be potentially put out of work by the regulation or Canadians whose businesses could potentially collapse as a result of the regulation will suffer. For these people the mental and emotional health consequences could potentially be severe to the point of triggering episodes that would require medical and social services intervention. If not caught and identified early enough, the severity of which could result in so called ‘deaths of despair’ (overdoses, suicides, etc.).

Furthermore, because the Government has chosen to introduce the concept of mental health and emotional wellbeing in this RIAS, which also argues that the Science Assessment on Plastic Pollution and the addition of “plastic manufactured items” to Schedule 1 was all part of a strategic plan with regards to the regulation of the single-use plastic items in question, the mental health and emotional health effects of adding “plastic manufactured items” to CEPA 1999 Schedule 1 also are required to be considered.

Let us look into this Pandora’s box!

The addition of “plastic manufactured items” to Schedule 1 of CEPA 1999 may not have registered immediately for many Canadians, because they have been distracted with other things more immediately important. However, when a Canadian looks through Table 1 and finds “plastic manufactured items” on the list along with many other clearly toxic substances, questions will be raised.

The problem with these questions is that they all boil down to “what do I trust?” Do Canadians trust CEPA 1999 schedule 1 or the dentist who gives them a new plastic toothbrush? Do Canadians trust ECCC or the Canadian Food Inspection Agency that says food packaged in plastic is safe? Do Canadians trust the plastic piping that supplies water to their homes? Do they trust the carpet on their floors, or the furniture that they sit on, or the toys their children play with?

Questions of trust are not emotionally easy to resolve. For people who already have emotional wellbeing impairments (impacts on handicapped persons also being raised in this RIAS) these types of cognitive dissonance can be enough to significantly affect quality of life. For average Canadians, the possible responses are to trust the Government less, to be more apathetic about both the environment and involvement in public life, or to place their trust in an activist group that makes sense of this all for them.

There definitely is cognitive dissonance required in accepting that all “plastic manufactured items” are toxic while doing just about anything in daily life from typing on a keyboard to driving to work, to having a meal. We are continually in contact with plastic manufactured items!

Changing focus, the argument that the single use plastics mentioned in the proposed regulation are harmful to the physical and emotional health of users and workers in public spaces is not proven. Footnote 44 cites a study conducted in Brazil that looked at litter in general and footnote 45 cites a study comparing responses to photos of littered beaches. The first study does not the single use plastics (bags, straws, stir sticks, food service items, plastic cutlery, ring carriers) as being by themselves responsible for injuries or unsanitary conditions. The second study looked at perceptions of litter but did not separate plastic litter from other “public” litter. Except for plastic cutlery, it seems very unlikely that a person could injure themselves even slightly with these items. Any unsanitary condition is not the result of plastic litter but decomposing biological or organic material as plastic items tend to be inherently sanitary.

The RIAS admits that for the most part, plastic litter is going to be replaced by paper and in some cases wood litter. To make the assertion that there will be an improvement in physical and mental health as a result of seeing more paper bags and wooden cutlery in the environment and a little less plastic litter is laughable. Since wood and paper are porous, it is a much better substrate for bacteria and other pathogens to adhere to, so is significantly more likely to result in an unsanitary condition. As well wood splinters are even more likely to injure people than plastic splinters.

It should also be noted that the Science Assessment also effectively closed the door on this topic, finding that there was no basis for finding that plastic pollution was toxic to the health of Canadians.

The research cited in Footnote 46 in fact is a literature survey of plastic pollution articles published. There is no actual new data presented. The literature survey cites sources that may or may not be peer reviewed, such as newspaper and magazine articles. The accuracy of the sources is never questioned, nor are any disagreements between different sources. The authors even admit that at least some (but in fact most) of their conclusions are “conjecture”. None of this is specific to any of the six categories of single use plastic items targeted by the proposed regulation. Since the basis of science is the collection of factual observation (which this article lacks) and drawing conclusions supported by the observations, this is not true science.

In conclusion to this comment, the proposed regulation is expected to do mental and emotional harm, the addition of “plastic manufactured items” to CEPA 1999 Schedule 1 causes mental and emotional harm, there is no evidence for the physical and emotional health benefits of this regulation, or of physical and emotional harm caused by the single use plastics that the Government intends to regulate. None of the studies cited offer evidence specific to the six categories of single use plastics that this regulation intends to ban.

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Increased enjoyment of ecosystem goods and services

“Studies have found that people’s perceptions, preferences, and valuations of ecosystem goods and services differ by several variables including, but not limited to, income, culture, education, and gender. ^{footnote47} These individual characteristics play a role in the degree to which the population would enjoy the benefits of the proposed Regulations. Studies have also found that peoples’ relationship with ecosystem goods and services is positively correlated with their willingness to pay for them. ^{footnote48} Hence, individuals will reap the benefits of improved well-being differently, depending on their relationships with ecosystem goods and services and their respective positionalities.”

OBJECTION (62):

If this statement is intended to express that not every Canadian will experience the same well-being impact as every other Canadian, that is acceptable. If on the other hand if this is trying to express that not experiencing a change in wellbeing or even caring about plastic pollution is related to an individual’s “positionality” this statement is divisive and very concerning.

“Positionality” is not a term that we commonly encounter, what does positionality mean?

“Positionality is the social and political context that creates your identity in terms of race, class, gender, sexuality, and ability status. Positionality also describes how your identity influences, and potentially biases, your understanding of and outlook on the world.” (Dictionary.com)

It seems that it may be the latter. If this the case, one wonders why this needs to be brought into the discussion. Are we going to start labeling people as “polluters” based on their race, gender, religion, or economic status?

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Avoided terrestrial litter clean-up costs

“As shown in Table 11, the expected decrease in plastic litter cleaned up from the environment would be 2 795 tonnes in the first year of full policy stringency (2024), or 29 823 tonnes over the analytical period (2023 to 2032). This tonnage would be equivalent to a reduction of more than 458 million SUP units cleaned up from the environment in 2024, or 4.9 billion SUP units over the analytical period. The analysis of avoided litter clean-up costs also needs to account for the increased littering of substitutes made from materials other than plastics. The littering rates for substitutes to the six categories of SUPs are expected to be the same as the six SUPs, independent

of the material type, except for reusable checkout bags, which are expected to have a littering rate of 0.5% relative to the 4.1% littering rate for SUP checkout bags.^{footnote49} Single-use substitutes made out of paper, wood, or moulded fibre are all biodegradable in the environment, and would represent around 95% of all substitutes, by weight. The littering of these substitutes is therefore not expected to result in long-term harm to the environment. However, a portion of these substitutes that are littered in the environment would still be cleaned up through paid and volunteer activities, before they had enough time to fully decompose. The proportion of these substitutes picked up during litter clean-up activities would vary depending on the category of item and the type of material. For example, a single-use paper straw decomposes in the environment much faster than a single-use paper checkout bag or a piece of single-use wood cutlery. While pollution from single-use aluminum foodservice ware would not decompose in the environment easily, these substitutes are expected to represent less than 1% of the total tonnage across all substitute materials.”

OBJECTION (63):

It continues to be amazing that the Government can estimate the change in the expected decrease in plastic litter in the first year of stringency to such a high degree of precision. The Government does not even know the total amount of plastic litter collect last year. This calls into question the precision with which the Government can make these projections. It certainly is not plausible that the Government can predict to within 5 significant digits the decrease in litter over the course of a decade. To the contrary, it is possible that plastic litter could increase by about 2000 tonnes per year in spite of the proposed regulation. The reason is that no one knows what human behavior will be like in two years. It may be that in two years we are completely free of COVID restrictions, Canada has better than typical weather for outdoor activities for the balance of a year, and habits with regard to the “social contract” in general and litter in particular become worse.

RATIONALE (63):

The government is aware of the inherent inaccuracy in all estimates of plastic pollution, having cited:

Julien Boucher and Guillaume Billard (2019). The challenges of measuring plastic pollution. The journal of field actions special issue 19, p. 68-75. Available at <https://journals.openedition.org/factsreports/5319>

Because the hard factual data on the extent of current plastic pollution is so lacking, it stands to reason that the determination if an improvement is made through regulation will be subject to the same errors.

OBJECTION (64):

We can agree that the littering rates for substitutes to the six categories of SUPs are expected to be the same as the six SUPs, independent of the material type, except I think that for reusable checkout bags, the littering rate would be much higher than the predicted rate of 0.5% relative to the estimated 4.1% littering rate for SUP checkout bags. In fact, it would be more reasonable to assume a 1% litter rate for reusable bags. A 0.5% rate is overly optimistic, especially over the lifetime of the regulation.

RATIONALE (64):

The 0.5% litter rate makes sense in the context of reusable bags that are high cost and “new”. Early adopters also tend to prize their new items more highly than the majority of consumers. Initially having and using reusable bags is treated as a booster of self-esteem, but when a consumer is no longer unique for using reusable bags and the novelty wears off, the bags will be cared for less. In jurisdictions that encourage the use of reusable bags it is likely that initially the litter rate for these bags, especially if they are sold, not given away, will be low.

Eventually what will happen is that producers will find ways to make bags more and more inexpensively. With a nationwide regulation requiring reusable bags the market for reusable bags is assured and multiple companies will offer reusable bags. Eventually competition will drive prices of the bags down to a level where consumers don't worry so much about having to buy new bags. A little later the bags that would have been purchased at the beginning of a ban on SUP bags begin to show some signs of wearing out, with also lends itself to consumers being more careless with them. Finally, there is a possibility that since the market is of significant size, that reusable bags will become fashion items, meaning that at regular intervals fashion conscious consumers will discard their out-of-style reusable bags and replace them with new bags that conform to current fashion or changes in personal taste.

Overall, only when we have seen a jurisdiction that has using reusable bags for several years will we know what the litter rate is for them. It most likely will be significantly more than 0.5%.

OBJECTION (65):

Agreed that single-use substitutes made out of paper, wood, or moulded fibre are all biodegradable, but that does not mean that they are not going to do any harm to the environment.

Items made from paper, wood or moulded fibre may be more persistent in the environment than this RIAS suggests. There are a wide variety of climates and ecosystem types in Canada, and they are not equally conducive to the biodegradation of paper, wood, or moulded fibre. Manufacturers of these items are also going to make efforts to make items made from paper wood or moulded fibre more durable while being used by consumers, but this also tends to result in items that are more resistant to biodegradation. It is not unlikely that in some regions in Canada such as the Southern Okanagan region, paper straws, moulded fibre food service items, and wood cutlery could persist in the environment for decades before breaking down to dust.

There has not been sufficient or even significant study of the environmental effects of the biodegradable substitutes proposed. The Government is blindly assuming that there is negligible impact when they have no data and there could potentially be significant impact.

Users and workers in public spaces (parks, shorelines, etc.) are not likely to be appreciative of heaps of decomposing paper, wood, and moulded fibre waste.

OBJECTION (66):

Since the Governments estimate of the litter rate for reusable bags likely is overly optimistic, and the Government is also has likely overestimated the rate at which biodegradation will naturally remove wood, paper, and moulded fibre replacement items from the environment, we expect that the forecast on the net decrease in litter collected will be incorrect by a wide margin. As stated above there is a high degree of uncertainty associated with all litter estimates, but even assuming that all background factors (weather etc.) are consistent, it is unlikely that the amount of litter collected annually will decrease by 2,800 tonnes. A decrease of 1,400 tonnes would be surprisingly good and a change approaching zero could be realistic.

OBJECTION (67):

The 4.1% litter rate for plastic checkout bags is reported without any sort of scientific evidence or report to back it up. Since the banning of SUP checkout bags is the keystone to the proposed regulation, it is critical that the Government and the public be sure that the extent of the current situation is clearly understood. To give a number

such as 4.1% but not cite a source indicates that the Government may be a bit ashamed of the source of its litter rate estimate.

The Government has good reason to be ashamed of its litter rate estimate for SUP checkout bags. The reason is that the 4.1% stated defies logic and practical experience of Canadians. A 4.1% litter rate means that an estimated 639 million checkout bags were littered in Canada in 2019. At the rates that the Government is projecting, about 365 million of them were cleaned up during the year, but about 274 million remain out there in addition to all the bags from previous years. If one were to assume as the Government apparently does, that the bags never break down or disappear, there would be about 3 billion bags blowing around Canada at this point after over 30 years of plastic checkout bag use.

On a per capita basis, this means that about 81 bags are out there for every Canadian. Understanding that checkout bag litter originates with population, the density of bags per square kilometer can be determined by multiplying population density of an area by 81 bags per person, so that as shown in the table below (using 2016 census data from Stats Canada), there could be one irretrievably polluting checkout bag for every 2 or 3 square meters in some urban areas.

	Population Density	Bags/km ²	m ² /bag
Toronto CMA	1004	81386	12.3
Montreal CMA	890	72178	13.9
Vancouver CMA	855	69288	14.4
Toronto City	4334	351442	2.8
Vancouver City	5491	445231	2.2
Montreal City	3889	315324	3.2

Note that above the calculation also is made for the larger CMA areas which incorporate the suburban and some rural areas around the larger urban cores. These values show that the projections made seem rather unrealistic. In the Vancouver CMA 14.4 square meters per checkout bag indicates on average every tree in the CMA would have a bag hanging in it. It would be necessary for drivers to routinely clear the undercarriage of their vehicles of plastic bags if it were this bad. This hypothetical scenario collapses because it is not supported by any direct observation.

A more realist concept is that of equilibrium, where the environmental occurrence of plastic bags or other litter reaches an equilibrium where the amount of litter added is very nearly equal to the amount of litter collected plus the litter that decomposes or otherwise is naturally consumed, plus the litter that is naturally transported to more inaccessible areas such as the oceans. All things should be considered as possible routes for plastic litter to be removed. For example, in the event of a forest or grassland fire, all plastic litter on the surface would naturally be consumed. Also, wildlife sometimes re-use litter as material for dens and nests and in the process further break it down.

A realist estimate of the litter rate for SUP checkout bags could therefore be about 2.6% assuming that the decomposition and natural transport rate is a bit over 10% of the litter collection rate using data from table 11 of the RIAS.

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Avoided terrestrial litter clean-up costs (continued)

“Governments generally do not apportion litter costs based on individual pieces of litter, but rather, on the time spent cleaning up that litter. The literature provides some examples of annual per capita costs for litter collection, but these data are not helpful in determining the marginal cost of a specific source of litter (i.e. the six categories of SUPs). The majority of cost information comes primarily from roadside litter collection programs. However, there are limitations in generalizing roadside litter clean-up costs across all terrestrial litter clean-up, as roadside litter clean-up costs will vary depending on litter deposition rates and density, cost of labour, surface conditions, and cost of the necessary equipment. ^(footnote50) Different studies from the United States have estimated the cost of litter clean-up at between US\$0.21 and US\$1.29 per littered item for paid public employees, and at between US\$0.047 and US\$0.18 for voluntary labour under Adopt-a-Highway litter clean-up programs. ^(footnote51) Another study estimated that the cost of labour alone to collect each piece of litter that accidentally leaked into the environment from curbside recycling collection ranged from US\$0.17 to US\$0.79 per littered item. ^{footnote52}

While the six categories of SUPs are among the most prevalent forms of plastic litter picked up during litter clean-up activities, other types of litter are also collected. Therefore, the following analysis is based on the average number of littered plastic items that can be picked up in one hour and assumes an average hourly labour rate or opportunity cost of volunteer labour of \$15 per hour.

Under the chosen central scenario, the proposed Regulations would result in \$61 million in avoided terrestrial clean-up cost in the first year of full policy stringency (2024), or \$583 million across the analytical period (2023–2032). These cost savings represent \$1.61 per capita ^(footnote53) in avoided terrestrial litter clean-up cost in 2024, or \$15.31 over the analytical period.”

OBJECTION (68):

Given that the estimated net change in the quantity of litter that would be collected by municipalities and volunteers is highly dubious, it seems completely unreasonable to ascribe a particular numerical value to the cost savings expected. The amount of saving over the analytical period is just as probable to be \$583 thousand as \$583 million. For subsequent comments, a reasonable estimate for the benefit due to reduced terrestrial litter clean-up cost would be \$40 million for the first year of policy stringency (2024).

RATIONALE (68):

For discussion, municipalities that arrange to collect litter tend to have contracts with their workers and tend to employ a relatively consistent number of workers year over year. If the prevalence of litter were to decrease, it does not rigidly follow that there would be fewer working hours consumed collecting the remaining litter, and if there is a decrease in the amount of worker time used for collecting litter it does not necessarily follow that the surplus times will be efficiently reassigned to other effective work.

REFERENCE:

Regulatory Analysis

Benefits and costs

Benefits

Avoided marine pollution costs

“The proposed Regulations would result in an estimated net reduction in marine plastic pollution of 2 663 tonnes over the analytical period. While a number of studies have quantified the tonnage of plastic pollution in marine environments and provided qualitative analysis of the associated negative externalities, monetization of those impacts is still an emerging area of study, mainly due to very limited data.

The Deloitte Study estimated that 2 500 tonnes of plastic waste was permanently leaked into the Canadian marine environment as plastic pollution in 2016. Another study by Deloitte modelled the median economic cost of marine plastic pollution in terms of its impact on tourism, fisheries, and clean-up costs in Canada at US\$31 million per year. ^{footnote54} Combining the two figures, the cost of marine plastic pollution in Canada can be estimated at approximately Can\$16,000 per tonne. This figure is expected to be a low-bound estimate, as the proprietary model only considered inhabited coastlines for clean-up, rather than the entire coastline, since that model assumed local governments would prioritize clean-up budgets around inhabited areas in comparison to remote and isolated coastal areas. The model also excluded impacts to wildlife and their habitat, and on valuation of real estate in coastal areas. The prevalence and relatively small size of the six SUPs (as compared to other plastic litter, such as fishing gear) also suggests that the \$16,000 would be a low-bound estimate. Considering an estimated net reduction of 250 tonnes in marine plastic pollution in the first year of full policy stringency (2024), the proposed Regulations would result in around \$3.7 million in avoided costs of marine plastic pollution (or a net reduction of 2 663 tonnes in marine plastic pollution resulting in avoided costs of around \$36 million over the analytical period).

Based on available literature, the analysis assumes that there are minimal negative externalities on the marine environment associated with single-use substitutes that are not made of plastic, as most of these substitutes would decompose either prior to reaching the marine environment or relatively quickly thereafter. In comparison, the six categories of SUPs are usually lighter and more buoyant than their non-plastic substitutes, which facilitate their transport via wind or water into marine environments.”

OBJECTION (69):

First, 250 tonnes per year is not very much. This RIAS is here admitting that 90% of the plastic marine pollution would continue and given that plastic is only a portion of the overall potential marine pollution (let us say generously to the Governments benefit 50%, considering that all sorts of contaminants are introduced to the marine environment from incompletely or improperly treated effluent), up to 95% of the potential pollutants in the marine environment would be left unaffected by this regulation.

This is not to say that the Government needs to fix everything all at once, but it is important to consider that the relative importance of other pollutants on the marine environment and ask ourselves, “what is the most positive action we can take is for the least cost or effort?” Considering that in the marine environment the most harmful and prevalent plastic pollution is “ghost gear” that is abandoned fishing equipment, it seems that a program to reduce the prevalence of this specific type of pollution in the marine environment would have dramatically more positive results than the proposed ban on the six SUPs.

There is a high degree of uncertainty as to any positive effect that the proposed regulation would have on marine pollution. As commented above, the Government’s estimates on the litter rates of alternatives to single use plastic bags could very well be underestimated by a factor of 2, leading to a significantly lower potential decrease in marine pollution. Similarly, the estimated biodegradation rates of alternatives to the six SUPs are unknown and could be more significant than the Government has optimistically projected. If this regulation were put in place, a 250 tonne per year decrease in marine pollution would be at the upper expected limit of possible results (i.e. the 95% upper confidence limit) and a 50 tonne per year increase may be the lower limit of possible results (i.e. the 95% lower confidence limit) in my opinion, and since the Governments estimates are as much conjecture as my estimates are, my estimates are just as valid.

REFERENCE:

Regulatory Analysis

Benefits and costs

Costs

Substitution cost (for all categories of SUPs except checkout bags)

“While the unit price of any one single substitute is relatively small (i.e. ranging from \$0.01 for a single-use wood stir stick to up to \$0.34 for a single-use cardboard substitute to a ring carrier), the total substitution costs per year for the proposed Regulations are expected to be significant, given that these substitutes would replace around thirty billion SUP items annually, or around 800 SUP items per Canadian. As depicted in Table 13, the substitution costs for five of the categories of SUPs (excluding checkout bags) is estimated to be \$185 million in the first year of full policy stringency (2024), or nearly \$1.8 billion over the analytical period (2023–2032). Those costs represent \$4.85 per capita in 2024, or \$46.41 per capita over the analytical period.”

OBJECTION (70):

The estimated cost of \$185 million likely will be a large underestimate. Since the calculation method used is not properly shared in this RIAS, and since the number of units to be substituted are estimates and the prices noted for the SUPs and the substitutes are not the prices that consumers pay, the estimated cost for substitution is unreliable. It is very likely that the cost of substitution is significantly greater than \$185 million and in fact could be as high as \$370 million. For later comments we can assume that a more realistic cost is \$215 million.

REFERENCE:

Regulatory Analysis

Benefits and costs

Costs

Substitution cost and secondary-use cost for SUP checkout bags

OBJECTION (71):

There are concerns about this whole section. While there is an acknowledgement that the cost of re-usable bags must be considered, along with the use of SUP bags as trash bin liners etc. which would require the purchase of additional bags from retailers, the authors opt out of making a calculation to demonstrate all of these factors and their effects on the expected cost. Instead, the authors say that this calculation is too complex, but a break-even analysis is better, and then by some miracle the costs breaks even.

A spreadsheet examining the cost breakdown of replacing SUP bags with SUNP bags and reusable bags was constructed (see next pages). The spreadsheet is based on the “baseline scenario” for 2024 as described in Table 8 of the RIAS. The retail costs of the bags were researched with information sources shown (note that the RIAS cites no sources for its analysis).

[Grocery Bags, Paper Lunch Bags, Paper Grocery Bags in Stock - ULINE.ca](https://www.uline.ca/BL_5504/Grocery-Bags?keywords=grocery+bags)

https://www.uline.ca/BL_5504/Grocery-Bags?keywords=grocery+bags

[FRANK X-Small White Garbage Bags, 15-L, 50-pk Canadian Tire](https://www.canadiantire.ca/en/pdp/frank-x-small-white-garbage-bags-15-l-50-pk-1424630p.html)

<https://www.canadiantire.ca/en/pdp/frank-x-small-white-garbage-bags-15-l-50-pk-1424630p.html>

[Save-On-Foods - Reusable Shopping Bag Apple Artwork \(saveonfoods.com\)](https://www.saveonfoods.com/)

<https://www.saveonfoods.com/sm/pickup/rsid/4410/product/saveonfoods-reusable-shopping-bag-apple-artwork-00775153010137>

[Save-On-Foods \(saveonfoods.com\)](https://www.saveonfoods.com)

<https://www.saveonfoods.com/sm/pickup/rsid/4410/terms-conditions/>

These retail prices are approximately ½ of the costs noted for the final retailers which is consistent with what is known about typical retail mark-up rates.

Single Use Plastic Check-out Bag Regulation Consumer Cost Scenarios Analysis

Assumptions Used:

- Retail prices of all bags are used instead of wholesales prices. This reflects cost to Canadians instead of cost to retailers.
- The estimated annual number of SUP bags from Table 8 is assumed to be correct for this analysis
- The estimated re-use rate for SUP bags as garbage bags is only 10% (the RIAS states a range of 12 to 22%)
- The estimated replacement rate by reusable bags is assumed to be 60%, and the reuse rate is 100 times for the base analysis (in agreement with the RIAS)
- The inflation rate is treated as 0%

Sources:

- Kraft Grocery Bag (12"x7"x17") [Grocery Bags, Paper Lunch Bags, Paper Grocery Bags in Stock - ULINE.ca](#) \$85/bundle of 500
- 100 Counts Small Trash Can Liners [FRANK X-Small White Garbage Bags, 15-L, 50-pk Canadian Tire](#) \$5.99 for 50
- Reusable shopping bag [Save-On-Foods - Reusable Shopping Bag Apple Artwork \(saveonfoods.com\)](#) \$1.99 each
- Single use plastic bags (section 2.8) [Save-On-Foods \(saveonfoods.com\)](#) \$0.05 each

Baseline Scenario:

Estimated number of SUP Bags in 2024 (Table 8)	Retail Cost of SUP bag	Annual Cost of SUP Bags	Estimated Population of Canada (Jan 2022)
14,984,000,000	\$0.050	\$749,200,000	38,272,000

Percentage SUP	Annual units SUP	Retail Cost SUP/unit	Extended Cost SUP	Percentage Reusable	Number of Reuses	Annual units Reusable	Retail Cost Reusable/unit	Extended Cost Reusable	Combined Cost SUNP & Reusable	Unit Cost of extra Garbage Bags	Percentage of Total Bags reused for Garbage	Total Annual Cost of Extra Garbage Bags	NET ANNUAL Cost Increase to Canadian Consumers	Per Capita Annual Cost to Canadians
30%	4,495,200,000	\$0.170	\$764,184,000	70%	100	104,888,000	\$1.99	\$208,727,120	\$972,911,120	\$0.12	10%	\$179,508,320	\$403,219,440	\$10.54
35%	5,244,400,000	\$0.170	\$891,548,000	65%	100	97,396,000	\$1.99	\$193,818,040	\$1,085,366,040	\$0.12	10%	\$179,508,320	\$515,674,360	\$13.47
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	10%	\$179,508,320	\$628,129,280	\$16.41
45%	6,742,800,000	\$0.170	\$1,146,276,000	55%	100	82,412,000	\$1.99	\$163,999,880	\$1,310,275,880	\$0.12	10%	\$179,508,320	\$740,584,200	\$19.35
50%	7,492,000,000	\$0.170	\$1,273,640,000	50%	100	74,920,000	\$1.99	\$149,090,800	\$1,422,730,800	\$0.12	10%	\$179,508,320	\$853,039,120	\$22.29
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	120	74,920,000	\$1.99	\$149,090,800	\$1,168,002,800	\$0.12	10%	\$179,508,320	\$598,311,120	\$15.63
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	10%	\$179,508,320	\$628,129,280	\$16.41
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	80	112,380,000	\$1.99	\$223,636,200	\$1,242,548,200	\$0.12	10%	\$179,508,320	\$672,856,520	\$17.58
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	60	149,840,000	\$1.99	\$298,181,600	\$1,317,093,600	\$0.12	10%	\$179,508,320	\$747,401,920	\$19.53
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	40	224,760,000	\$1.99	\$447,272,400	\$1,466,184,400	\$0.12	10%	\$179,508,320	\$896,492,720	\$23.42
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	22%	\$394,918,304	\$843,539,264	\$22.04
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	17%	\$305,164,144	\$753,785,104	\$19.70
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	12%	\$215,409,984	\$664,030,944	\$17.35
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	10%	\$179,508,320	\$628,129,280	\$16.41
40%	5,993,600,000	\$0.170	\$1,018,912,000	60%	100	89,904,000	\$1.99	\$178,908,960	\$1,197,820,960	\$0.12	8%	\$143,606,656	\$592,227,616	\$15.47

Our new analysis shows multiple variations of the parameters. We can see the effect of varying the ratio of single-use non-plastic (SUNP) alternatives to re-usable alternatives. The highlighted 'central' value of 40% is the value that the RIAS agrees is the most likely. In this case we see that a 30% or lower rate of SUNP will decrease the cost to Canadians.

Likewise, we can see the effect of various re-use rates for the reusable bags. As expected, the higher number of uses the better the economics, but surprisingly, the differences are not as dramatic as one would expect.

Finally, we can compare the effect of the SUP bags that currently are re-used as trash can liners etc. and have to be replaced with store bought trash can liners. In this case even though the RIAS states that the lower limit of this activity is expected to be 12% of the total baseline scenario of SUP bags (22% upper limit), 10% is used as the baseline. We can see here that a reduction of this to 8% will only affect the outcome by "only" \$36 million.

The lowest cost scenario would be if the single-use non-plastic (SUNP) alternatives are used at under 30%, the re-usable bags on average are reused 120 times, and the rate at which consumers buy new bags for trash can liners and other uses is 8% or less of the baseline scenario number of bags. In this case we could see the direct cost to Canadian consumers being only as low as \$300 million per year.

The RIAS discusses the possibility of re-use of some of the SUNP alternative bags. It is however questionable to assume that this would have a significant impact on the cost to Canadians. This is because only by moving increasingly away from SUNP bags toward re-useable bags do we see a breakeven point being possible. A possible break-even is reached when the SUNP versus reusable bag ratio hits about 15%. At this level, to make an impact about 50% of the available SUNP bags (remembering that this is 15% of the baseline scenario) would have to be re-used. This seems a little far-fetched given that the durability of the SUNP alternatives has always been the reason consumers would accept single-use plastic bags instead. There also already is an abundance of suitable paper and paperboard for use as compost bin liners. Paper bags purchased by consumers for use holding compostable materials are normally much larger bags than those used as checkout bags. Paper bags are not as effective as plastic bags when they are wet. They are also easy to tear. We believe that any re-use of non-plastic bags is addressed in the spreadsheet by "discounting" the new bag rate from 12% to 10 or 8%.

It is unlikely that we will ever shift to as high as 85% use of reusable bags. Consumers would have to be carrying multiple bags with them everywhere they go for this to be a possibility. This is because when you go shopping you rarely know the number of bags will be required for all your purchases. For this reason, in the interest of keeping consumers happy, stores will continue to offer so called "single-use" bags.

If consumers were to each have ownership of up to six re-usable bags each, the problem would then be that the bags would not be employed for their intended use as frequently, yet the bags would be more ubiquitous and therefore more likely to be lost, stolen, misplaced, misused (used to carry materials that permanently contaminate or damage the bag), mishandled (for example stored under conditions that makes them un-usable), and improperly disposed of before they reach the number of uses they were intended for. This is the main reason the possibility of a "break-even" is completely unrealistic.

We could liberally estimate that the substitution cost of SUP checkout bags will be >\$300 million per year with a more conservative possibility of being about \$600 million per year. For further comments it will be assumed that a more reasonable consumer cost for substitution of SUP checkout bags is about \$400 million. This is dramatically different from the \$0 per year that this RIAS suggests.

REFERENCE:

Regulatory Analysis

Benefits and costs

Costs

Waste management costs

(whole section)

OBJECTION (72):

There are concerns with this whole section. The RIAS argues that the overall tonnage of waste will double, but that this will not have the effect of doubling the waste management costs for the substitution of the six single use plastics the Government is proposing to ban.

This RIAS does not show any actual calculations for the determination of the waste management costs associated with the proposed substitution, though a methodology or formula is given for making a calculation. The point of the formula is to show that there are costs per tonne of waste collected transported, sorted and finally disposed, but there also is potential value recovery for portion of the waste that can be recycled or composted.

It seems that the authors of the RIAS are very optimistic about the value recover side of this equation and they cite the elimination of plastic bags in particular as a reason:

“The analysis also estimates cost savings associated with a reduction in the hampering of recycling machinery by SUP checkout bags. SUP checkout bags can clog recycling machinery, causing delays in efficiency to clean out the machine.”

The problem with this is that we do not get to see the Government’s calculations. What we do know is that the Government expects an increase in paper waste by 260 thousand tonnes. This is about 85% of all the incremental increase in waste as a result of substitution. The Government may be assuming that this paper waste has a high recycling waste and therefore significant value recovery will be realized. Unfortunately, this is not likely to be the case for many reasons.

If a significant percentage of the “new” paper waste is recycled, there is a potential that the prices for recycled paper could decrease significantly. There is still a robust demand for recycled paper, and it is possible for the Canadian mills to use the “new” waste domestically, but prices are not invariable.

Most of the paper to be recycled is expected to be unbleached kraft paper, which is not particularly high value. This paper cannot be recycled to make a 100% kraft paper bag again. The result is that the paper fiber would likely end up as “box board” or “container board” which are a lower value.

Most of the paper waste that would result from substitutions due to the regulations would be in contact with food directly or indirectly. This leads to contamination of the material and removes recycling as an option.

Consumers know that paper is compostable, and municipal waste collection is beginning to focus on compostable material pickup at twice the frequency as other pickups. Municipalities view composting not as a way to recover value, but to cheaply and quickly get rid of a problem. With consumers having their compostable waste frequently being picked up municipalities with minimal limits on quantities, and knowing that paper is compostable, the practical choice when the regular garbage or recycling pickup is still a week away, is to put ‘extra’ paper in the compost bin.

It is doubtful that the Government has addressed the fact that by removing some of the plastics from the waste management stream and replace them with other materials, that the systems set-up for plastics will still need to be run. That is the same number of trucks are used to pick up recycling whether running at 95% capacity or 75% capacity.

Since there are no actual calculations to base anything on, we are left guessing if the calculation is correct. It is possible that the government is hoping that local composting facilities will come to the rescue and save them on this one, but nobody knows what the actual garbage versus compost rate versus recycling rate will be. If it turns out that too high a percentage goes to a landfill, the costs can be much higher than the projected \$16 to 18 million per year. The costs cost easily be as high as \$65 to 75 million per year if the waste management costs turn out to be similar to those of plastic waste.

REFERENCE:

Regulatory Analysis

Benefits and costs

Costs

Perceived utility loss (from consumer preferences)

“While SUPs and their substitutes are functionally equivalent, some consumers may have preferences for certain materials over others, and therefore, may not derive the same satisfaction from using SUP substitutes relative to SUPs.”

OBJECTION (73):

The problem here is that not everything is “functionally equivalent” just by being able to do close to the same thing. A paper straw is not functionally equivalent to a plastic straw because the paper straw will fail to function as a straw within minutes of becoming wet. Paper bags are not functionally equivalent to single-use plastic bags, when you need to carry two or more heavy bags of groceries from a store in the rain. A “reusable bag” is not functionally equivalent to a single-use bag because it must be carried to the store as well as from the store.

REFERENCE:

Regulatory Analysis

Benefits and costs

Costs

Perceived utility loss (from consumer preferences)

“It is also possible that some consumers may derive additional satisfaction from using SUP substitutes through the knowledge that their consumer choice did not contribute to the proliferation of plastic waste. For some consumers, the increased satisfaction gained from using items that are not ecologically hazardous may outweigh losses to the user experience.”

OBJECTION (74):

It is probable that many consumers will feel that they have more important things to worry about (like feeding their families) than some vague idea that by accepting inferior products they are doing their little bit to save sea turtles (or more likely the seagulls that are circling the local landfill). This statement in this RIAS has such a patronizing tone; one cannot help but to make a snide remark in response.

REFERENCE:

Regulatory Analysis

Benefits and costs

Cost-benefit statement

Table 18. Monetized costs, discounted (in millions of dollars)

“As shown in Table 18, the proposed Regulations are expected to result in \$205 million in costs in the first year of full policy stringency (2024), or \$1.9 billion in costs over the analytical period (2023 to 2032). While these costs are significant in aggregate, they would be widely dispersed across Canadian consumers (around \$5 per capita in 2024 or \$50 per capita over the analytical period). Some consumers may feel the burden of these costs more than others, though these distributional impacts are expected to be relatively minor, especially given the exemptions for SUP flexible straws for accessibility purposes. This and other factors are explored in the “Gender-based analysis plus” section. All costs (except administrative and government costs) are assessed at the consumer level. Cost to businesses operating in the Canadian plastics industry is expected to be mitigated, as manufacture for export would be not prohibited under the proposed Regulations.

OBJECTION (75):

It is doubtful that in the first year of full policy stringency the cost would only be \$205 million. As noted above, the cost of substitution absorbed by consumers for the six SUPs could be \$430 million higher (\$400 million for checkout bags and \$30 million for the other SUPs) than noted in this RIAS. Since the other costs tabulated in Table 18 are proportionally significantly smaller, even if they are poor estimates, they are less likely to more seriously undermine the poor quality of this cost estimate. Overall, an annual cost estimate of \$635 million is just as reasonable and possibly more reasonable than the \$205 million cost that the Government estimates.

OBJECTION (76):

It is stated here that *“All costs (except administrative and government costs) are assessed at the consumer level.”* While previously this RIAS in the Baseline scenario subsection has stated that *“The database includes estimates for sales volume, average price per unit (as paid by the final retailer), and the average mass per unit across the six categories of SUPs and their main substitutes.”* indicating that the cost accounting made above was not the true consumer cost.

One of these statements is very likely to be incorrect. Based on the substitution price data available in the various tables, the statement that the costs are those paid by the final retailer is probably correct, making the claim that all costs are assessed at the consumer level incorrect. In either case this is a very significant inconsistency with the cost versus benefit analysis and needs to result in a complete re-evaluation of this section of the RIAS for this proposed regulation.

If the Government recalculated the monetary costs of the proposed regulation, the option to cancel the planned implementation of the regulation based on the new numbers should remain on the table.

REFERENCE:

Regulatory Analysis

Benefits and costs

Cost-benefit statement

Table 19. Monetized benefits, discounted (in millions of dollars)

“As shown in Table 19, the proposed Regulations are expected to result in \$65 million in monetized benefits in the first year of full policy stringency (2024), or \$619 million in monetized benefits over the analytical period (2023 to 2032), stemming mainly from the avoided cost of terrestrial litter clean-up. As shown in Table 20, the costs and monetized benefits of the proposed Regulations would total \$140 million in net cost in the first year of full policy stringency (2024), or \$1.3 billion in net cost over the analytical period (2023 to 2032).”

OBJECTION (77):

It is doubtful that in the first year of full policy stringency the monetary benefit would be as much as \$65 million. As noted in other comments above, the saving for terrestrial litter cleanup in 2024 could just as realistically be \$40 million, so overall the total monetary benefits tabulated in Table 19 could be \$44 million.

REFERENCE:

Regulatory Analysis

Benefits and costs

Cost-benefit statement

Table 20. Summary of monetized costs and benefits (discounted)

“While the proposed Regulations are expected to result in a total net cost with respect to monetized impacts, the most significant benefit is non-monetized; namely, the reduction in risk of harm to wildlife and their habitats from less plastic pollution. As shown in Table 20, the proposed Regulations are expected to result in 132 242 avoided tonnes of plastic waste in the first year of full policy stringency (2024), or 1.4 million tonnes over the analytical period (2023 to 2032), of which 1 293 tonnes, or 23 432 tonnes, respectively, would be avoided plastic pollution. By item count, those values translate to around 28 billion units of avoided plastic waste in the first year of full policy stringency (2024), or around 300 billion units over the analytical period (2023 to 2032), of which 360 million units, or 3.8 billion units, respectively, would represent avoided plastic pollution. Given the extent of ecological harm that the six categories of SUPs becoming plastic pollution can cause to wildlife and their habitats, and the reduction of enjoyment of ecological goods and services by Canadians, the associated non-monetized benefits are expected to be significant.”

OBJECTION (78):

It is ironic that the most significant benefit of the proposed regulation is proclaimed to be *“reduction in risk of harm to wildlife and their habitats.”* We need to be talking about actual reduction of harm to the environment, not reduction of **risk** of harm.

It has not been adequately established that reduction in harm or risk of harm will be achieved by the proposed regulations. This is because there has not been established a baseline of any harm or risk of harm and because the expected benefits are highly speculative. Without knowing where we are starting from, how do we know if we are getting anywhere?

Regarding the net monetary cost, in the first year of full policy stringency (2024) the cost could be \$591 million based on the comments above instead of the mere \$140 million that the Government predicts. This is four times higher than the governments estimates and really is a significant amount of money.

One wonders what could be done to improve the Canadian environment with \$591 million. If according to Table 11, there is an annual reduction of 2196 tonnes (terrestrial) plus 250 tonnes (marine) of plastic pollution remaining in the environment, this works out to a cost of over \$241,000 per tonne, but since there is a possibility that the

decrease in plastic pollution could be significantly lower as previously commented, the cost to reduce the amount of plastic pollution involved could exceed \$300,000 per tonne or \$300 per kilogram.

Even the Governments own predictions do not paint a good picture. If by some turn of good luck, the cost of the regulation to Canadians is only \$140 million to reduce plastic pollution by 2196 tonnes (terrestrial) plus 250 tonnes (marine) per year, that calculates to \$57,000 per tonne.

Since there is research that points to the relative high rate of harm done by “ghost gear” in the marine environment compared to all other types of plastic pollution, a very cost-effective action would be to implement a used fishing gear buy-back program. If the used gear were bought back at a rate of \$5700 per tonne this would be a bargain in comparison to the Government proposal.

If the Government supported programs to subsidize litter cleanup programs, it certainly can do better than \$57,000 per tonne.

There are options for enhanced enforcement of provincial anti-litter regulations which can result in fines as high as \$2000. In jurisdictions where the RCMP is contracted to provide policing service, the Government can ensure that adequate training is provided to RCMP officers on provincial litter laws to ensure that they are equipped to enforce these laws. If littering is treated as a crime rather than a nuisance, things could change.

Finally cultural change can be encouraged. If pride in a clean litter free Canada is promoted, as opposed to promotion of a “let someone else cleanup my mess” attitude, things will improve. To this end we need to encourage local governments to lower barriers to volunteers, as individuals or as groups, to take action to clean up the public spaces in their communities.

All of these actions would likely be more cost-effective in addressing plastic and other nuisance pollution. They would also all be less intrusive into Canadian life and even potentially be beneficial for the Canadian economy (creating spin-off jobs etc.). Since one of the key requirements of CEPA 1999 is that action be cost-effective, the Government has failed to show that the proposed regulation is a cost-effective action.

REFERENCE:

Regulatory Analysis

Benefits and costs

Sensitivity analysis

(general comment on whole section objectives)

OBJECTION (79):

This section has the feel of an attempt to convince the reader that the monetary cost benefit analysis final determination was conservative, however it only looks at a few relatively inconsequential factors that could affect the cost benefit determination.

The point of this exercise then turns out to be to gloss over the poor treatment of the issue of SUP checkout bag substitution costs which is the central cost of the whole regulation. Market behavior will significantly affect the cost benefit analysis across the board. The number of SUP checkout bags intended to be substituted is higher than all the other SUP items combined and so has a large impact on how this could go.

The Government could be “lucky” and retailers and manufactures could develop and sell economical reusable bags complying with the regulation that >90% of consumers gladly accept with the result of an actual cost break-even, or it could be a disaster of consumers feeling as if they have been forced to use inferior products by a paternalistic federal government.

REFERENCE:

Regulatory Analysis

Small business lens

(general comment on whole section objectives)

OBJECTION (80):

This section makes light of the impact on the small businesses that manufacture SUP items. It seems that the Government has little interest in looking at these business and businesses that are suppliers to these businesses to determine what actual costs to the overall Canadian economy would be. Retooling of production lines the way it is presented here sounds like it is going to be a low cost solution that takes a matter of weeks, when in fact may require entirely new production equipment to be brought in after the in use production equipment is scrapped at costs of millions of dollars.

There is no discussion of the impact that the regulation will have on employment. For example, if money is to be saved as a result of less litter to be collected, that would indicate that fewer workers would be paid to clean up litter and that small businesses that contract to clean up litter could be affected. For certain workers at manufacturers and imports would be displaced if substitution of the six SUP items were to take place. While there may be new jobs in other sectors, and even if displaced workers all acquire new employment relatively quickly, the transition will result in economic and social stress.

REFERENCE:

Regulatory Analysis

Small business lens

“The proposed Regulations would impact an estimated 242 000 businesses that sell or offer these SUPs, 79 businesses that manufacture them, and 43 businesses that import them. Additional flexibility to limit the burden on small businesses is not appropriate, as the environmental objective of the proposed Regulations could not be met unless all SUPs subject to the proposed Regulations are prohibited.”

OBJECTION (81):

The statement that additional flexibility *“is not appropriate, as the environmental objective of the proposed Regulations could not be met unless all SUPs subject to the proposed Regulations are prohibited”* is not correct. According to Table 11 the estimated net reduction in plastic waste as a result of the ban on plastic ring carriers is actually an estimated increase of 863 tonnes, an increase of 9 tonnes of plastic litter, an increase of 5 tonnes of litter cleaned up, and an increase of 4 tonnes of plastic pollution. Effectively the ban of this single item is expected to make environmental quality worse than if it were not put in place.

The ban on stir sticks is only estimated to be marginally more effective reducing litter by an estimated 4 tonnes, and after litter cleanup plastic pollution by an estimated 2 tonnes.

This makes one question if there are additional unstated objectives, since the objective is supposed to be:

“The objective of the proposed Single-Use Plastics Prohibition Regulations (the proposed Regulations) is to prevent plastic pollution by eliminating or restricting the manufacture, import, and sale of six categories of SUPs that pose a threat to the environment.”

The estimated effect on plastic pollution for five of the six banned items is minimal (estimated 131 tonnes) compared to the overall estimated 29 000 tonnes of plastic pollution claimed per this RIAS to be irretrievably polluted into the environment every year. This is generously estimated at a 0.46% decrease in plastic pollution. This stated objective is not anywhere near being met. The optimistic forecasts of the effectiveness of the proposed regulation do not even approach the statistical uncertainty in the annual estimates of Canadian plastic pollution.

As stated in prior comment, there is a great deal of uncertainty in all the estimates of pollution reduction that this RIAS suggests could take place. The majority of the estimates are overly optimistic regarding the possible benefits of the proposed regulation or overly pessimistic about the quantities of plastic pollution occurring each year. Given that, it is expected that for the bans on the five single use items excluding checkout bags, that decrease in pollution could be much less than the estimated 131 tonnes, possibly as little as 60 tonnes if one were to guess.

Regarding the ban on checkout bags, as commented prior, there is a chance that the ban may be perceived to reduce plastic pollution marginally. Part of this is that the current rate of plastic pollution is likely much less than this RIAS suggests. At 4.1% litter rate, there would be approximately 2 million plastic bags being littered per day across Canada. If as reported per this RIAS, plastic checkout bags are transported by the wind, there would be plastic checkout bags being blown across the Canadian prairies like tumble weeds. In an urban environment there would be littered plastic bags by the dozens everywhere one looks. Neither of these are the case.

If there is a problem, it is being dramatically overstated. The need for inflexibility on the part of the Government is also overstated, unless there is another unwritten objective. If the Government is willing to demonstrate flexibility, there may in fact be a possibility for a better outcome.

REFERENCE:

Regulatory Analysis

Regulatory cooperation and alignment

(general comment on whole section objectives)

OBJECTION (82):

This section makes a strong case for not implementing the proposed regulation, since other levels of government are already actively working to address concerns about litter and solid waste pollution. In fact the Governments action could be seen as adding an unnecessary layer of bureaucracy since at least two other levels of government are taking action already for a significant portion of the Canadian population.

REFERENCE:

Regulatory Analysis

Strategic environmental assessment

(general comment on whole section objectives)

OBJECTION (83):

The methodology that this section describes being used for the strategic environmental assessment (SEA) or life cycle analysis is acceptable in general terms. We can agree that the analysis should be qualitative:

“This analysis was applied at each of the three stages mentioned above and was largely qualitative in nature, in particular due to inconsistencies between available LCAs, such as the substitutes analyzed, parameters pertaining to the data used, and the environmental effects assessed. In addition, available litter data from different sources (e.g. shoreline clean-up data versus municipal litter audits) use different methodologies, categorizations, and data standards, precluding quantitative analysis. LCAs were done for different jurisdictions, mostly non-domestic. Due to these inconsistencies, as well as other variables such as humidity, weight ratios, and the use of recycled materials, it was not feasible to determine the extent or magnitude of the environmental effects.”

This section has interesting entries in Table 26 which is intended to be a listing of substitutes for single-use plastic products. For example, glass and wood straws?

We can also accept the qualitative appraisal of “Upstream environmental effects” in Table 28 for the most part, though Table 28 should also have a line for Biodiversity effects in parallel to Table 29. It may also be worth noting effects on human health on both tables.

It is a worthwhile effort to assign a numeric rating to each of the Environment Effects so that a net “score” can be determined. If this is done we can get a little better sense of the net effects. Below is a table showing some potential ratings:

Environmental Effects	Upstream Effects	Upstream Rating	Downstream Effects	Downstream Rating	Net Rating
Climate Change	Some minor negative environmental effects	-3	No significant environmental effects	-1	-4
Air Quality	Some negative environmental effects	-5	Potential environmental effects	-3	-8
Water Quality	Some negative environmental effects	-5	Significant positive environmental effects	9	4
Water Quantity	Some negative environmental effects	-5	Potential environmental effects	-3	-8
Terrestrial Environmental quality	Some negative environmental effects	-5	Significant positive environmental effects	9	4
Biodiversity	No environmental effects	0	Significant positive environmental effects	9	9
				Total Score	-3

That said, we disagree with some of the assessment, such as that the climate change effect of substitution upstream and downstream rating. Forests are supposed to help with extracting and retaining CO₂ from the atmosphere, so greater use of wood and paper products has the potential to reduce forested area, which in turn can decrease CO₂ uptake. It is expected that there will be some negative effects due to increased CO₂ and methane generation as a result of a volume increase of waste materials to be processed and the methane released from the additional volume of materials being composted.

The production of paper products can have significant water quality impacts. Pulp mill effluent release (spills) are likely to increase significantly. This could seriously impact freshwater streams and lakes, as pulp mill effluent can

be immediately toxic to fish and other freshwater wildlife, whereas the impact of plastic litter on streams is not demonstrated to be immediately toxic to large numbers of fish etc.

Since it has not been clearly explained what the degree of harm done to the quality of the terrestrial environment because of plastic pollution or litter, the potential positive effect rating should be decreased.

Since use of wood and paper products requires cutting down trees which are part of an ecosystem, there is significant risk to biodiversity. Even if the wood and paper to be used are taken from professionally managed second and third growth forests, there will be increased demand for wood products which will be a driver for increased logging both in Canada and internationally, all of which would put species at risk.

Human health effects should also be considered since humanity is part of the environment. To that end the largest effect is that wood and paper alternatives are porous and therefore more prone to be unsanitary especially in the downstream part of this determination. The reuse of some items may increase risks of contaminated food service items and utensils. It is also unclear if there will be additional human health risks in the manufacture of some of the substitutes.

Environmental Effects	Upstream Effects	Upstream Rating (±10)	Downstream Effects	Downstream Rating (±10)	Net Rating
Climate Change	Some negative environmental effects	-5	Some minor negative environmental effects	-3	-8
Air Quality	Some negative environmental effects	-5	Potential environmental effects	-3	-8
Water Quality	Significant negative environmental effects	-9	Significant positive environmental effects	9	0
Water Quantity	Some negative environmental effects	-5	Potential environmental effects	-3	-8
Terrestrial Environmental quality	Some negative environmental effects	-5	Significant positive environmental effects	7	2
Biodiversity	Some negative environmental effects	-3	Some positive environmental effects	5	2
Human health	Minimal negative effect	-1	Some negative environmental effects	-5	-6
				Total Score	-26

There is a contrast between these two tabulations of scores, but since the rating by any tally is not dramatically positive, it is clear that there is no justification for the Government implementing the proposed regulations. Since the intent of the authors will be to show that the regulation is worth being implemented, there is naturally a bias toward this SEA being in favor of the regulation and even with this bias, a critical look at the SEA does not warrant implementation of the proposed regulation.

One thought that should be considered is that the Government has on several occasions has indicated that climate change is a paramount concern above all others. If climate change is the “existential threat” that it has been portrayed as, it seems that both negative upstream and downstream effects for this environmental aspect should be taken more seriously by the Government than all other aspects. It may even be worth considering it alone as the only criteria that we look at, but if that were the case, it would be even more apparent that the regulation must not be implemented.

REFERENCE:

Regulatory Analysis

Strategic environmental assessment

Mitigation and enhancement

“The SEA identified a range of mitigation opportunities to reduce, or eliminate the negative environmental effects identified at the upstream stage that may be caused by increased consumption of substitutes:

rules for reusable products: *Many LCAs conclude that a reusable substitute must be used many times before its environmental impacts equal or become less than that of SUPs. The proposed Regulations would mandate minimum performance standards for reusable plastic checkout bags, cutlery, and straws. The performance standards would ensure that reusable substitutes made of plastic could be reused enough times to minimize or negate many of the negative environmental effects identified at the upstream stage of the product lifecycle;*

measures in place or under development: *Many of the negative effects identified in the SEA (e.g. effects on air quality, water quality, and terrestrial environmental quality) would be mitigated by existing or proposed environmental protection measures. For example, the Government of Canada announced, through its strengthened climate plan, its intention to develop new federal regulations to increase the number of landfills that collect and treat their methane. ^{footnote65} This would reduce methane emissions caused by paper bags that enter landfills;*

innovation and scaling up new technologies and business practices: *Many of the negative environmental effects identified in the upstream stage could be mitigated or negated through more circular technologies and business practices, if adopted at scale. For example, the Government of Canada’s estimates on the short-term potential for the adoption of reuse systems for foodservice ware is relatively low, meaning businesses are expected to switch to single-use substitutes to the prohibited products. The Government of Canada could work with industry and other partners to innovate and promote scalable business models for adopting reusable and refillable substitutes, which could minimize or negate any negative environmental effects. These kinds of systems are beginning to be trialled in parts of Canada, such as a system being offered by a partnership between companies Loop and Loblaws^{footnote66} that provides consumers with reusable packaging for certain grocery items; and*

consumer education and promoting low-waste lifestyles: *While the proposed Regulations would mandate performance standards for reusable checkout bags, cutlery and straws, some studies have shown that reusable products may not be used to their fullest extent by consumers (e.g. 15 to 20 uses rather than 100 or more uses).^{footnote67} The Government of Canada will work with partners and stakeholders to educate consumers on the reuse potential of their reusable bags, cutlery and straws, as well as promote low-waste consumption behaviours more generally to encourage reuse. By increasing reuse, the environmental impacts of reusable products would be considerably reduced.*

OBJECTION (84):

The existence of this section can be taken as an admission that the proposed regulation is not expected to be environmentally beneficial. Otherwise, there would be no significant need to address mitigations for the proposed regulations. We could accept that there may be one or two environmental aspects where the proposed regulation would have a negative effect and that ideally it would be best to take some action to mitigate that negative effect, but the proposed regulation has the potential to cause negative environmental effects on every aspect that is being looked at.

Regarding the “*rules for reusable products*” this is the only one of the mitigations that the Government would be committed to by the regulation. This however does not adequately assure that re-usable items will in fact be re-

used to the extent that the Government wishes they were. If the intent of the performance requirements is to assure that a reusable item is indeed reusable, there must be a comprehensive set of real-world based performance criteria. For example, re-usable checkout bags would have to be resistant to weathering, since between uses they may not necessarily be stored under optimal conditions. Bags must also be offered in realistic ranges of sizes etc. To determine these criteria and the associated test methods, working with a standards development organization is the best approach.

Regarding “*measures in place or under development*” the idea is that existing and proposed environmental protection regulations will address some of the negative consequences of this proposed regulation. First, it is speculative that “proposed” environmental protection measures will come into force. Many proposed measures do not. For discussion, the idea of capturing methane releases from landfills sounds attractive, however it remains unclear if it is practically feasible. The authors did not point to specific existing regulations that will mitigate any of the negative consequences of the proposed regulation. It also must be remembered that the existence of regulation does not imply compliance or even that the regulation is effective at addressing the harm sought to be mitigated.

Any potential mitigation from “*innovation and scaling up new technologies and business practices*” is highly speculative. The word “could” is used here three times, indicating how speculative this is. Cutting out extra verbiage from one sentence, “*The Government of Canada could work with industry..., which could minimize ... negative environmental effects.*” This is mitigation based on wishful thinking. It is likely that most innovation that would occur because of the proposed regulation will be focused on “work arounds” to it.

Regarding “*consumer education and promoting low-waste lifestyles*” if the Government claims that it will collaborate with stakeholders etc. to promote re-use of items, what is stopping the Government from doing promoting reuse of items right now? Reusable checkout bags have been in the market for a few years and the Government has done little or nothing to substantially promote the transition to reusable bags, or to encourage consumers to use them until they fail as opposed to reusing them for a very limited number of times. Many so-called single use items can be reused, and the Government has not said one word suggesting that, if possible, consumers should re-use checkout bags or anything else.

If the Government was serious about the above mitigations, the Government would be taking action on them all immediately. There is nothing preventing the Government from issuing an advisory of recommended performance standards on reusable bags. There was nothing stopping Government from working with standards development organizations to develop performance standards for reusable items. For example, the Canadian Standards Association (CSA) can be used to both develop product specifications and to certify product to those specifications. There is also nothing preventing the Government from getting serious about mitigation of greenhouse gases from landfills and composting facilities. There is nothing preventing the Government from focusing the scientific research it finances through various grants toward innovation that would mitigate the negative consequences of single-use items whether plastic or non-plastics or that would enhance the recyclability of materials.

In conclusion to this comment, it is dubious that the mitigations proposed will be taken up without some other pressing driver. As a result, we will be left with a new regulation that at best does not improve the quality of the environment and at worst degrades it, and sadly for a cost of hundreds of millions of dollars to Canadians.

REFERENCE:

Regulatory Analysis

Gender-based analysis plus

“A gender-based analysis plus (GBA+) was conducted for the proposed Regulations and it determined that, while the proposed Regulations would affect all Canadians to a certain extent, certain demographic groups may be disproportionately impacted. As a result, the Department determined that mitigation measures were needed in the proposed Regulations to abate these impacts.”

OBJECTION (85):

There are indications that the GBA+ was not as thorough as would be expected. For instance, there is no mention of the potential for employment disruption effects to be proposed regulation and a determination if those employment disruptions would disproportionately affect differing demographic groups. Regarding the small businesses that would be affected, there is no attempt to capture if the regulation will disproportionately have effects on demographic groups such as business owners who are recent immigrants. Since the regulation is expected to affect many businesses, and the Government has made no evaluation of the demographic of the affected businesses owners and employees, this GBA+ is incomplete.

Regarding the affects identified in this GBA+, the Government cannot just say that this regulation will have disproportionate negative effects on low-income families especially families headed by single mothers and then do nothing. The point of doing GBA+ is to take the possibility of increasing disparity into consideration when proposing a regulation. The mitigations offered are to allow handicapped people to use flexible straws if they can find a store that will sell them to them. Tough comfort.

In this case, after all that has been commented above about the likely ineffectiveness of the proposed regulations, the high cost to Canadians in general of the proposed regulation, the climate change harm of the proposed regulation, and now the increase in inequity from the proposed regulation, it is clear that this regulation should not go forward in any form.

REFERENCE:

Implementation, compliance and enforcement, and service standards

Enforcement

“Subject to the enforcement officer’s discretion, the following responses are available to deal with alleged violations of CEPA and its regulations:

- *warnings;*
- *directions;*
- *tickets;*
- *ministerial orders;*
- *environmental protection compliance orders;*
- *detention orders for ships;*
- *injunctions;*
- *prosecutions;*
- *environmental protection alternative measures; and*
- *court orders following convictions and civil suits by the Crown to recover costs.”*

OBJECTION (86):

This RIAS should note that since the proposed regulation is likely to affect millions of Canadians what a “ticket” could cost (minimum \$200) or that if taken to court for a violation, an individual could face a minimum fine of

\$5000 upon summary conviction. This could make it very expensive to shop outside of Canada and take home your purchase in non-approved bags.

Because the fines and tickets could be disproportionately punitive for the Canadian consumer, this regulation should not be put in place using the same enforcement mechanism as used for regular CEPA 1999 violations.

Objections to the document:

GUIDANCE FOR SELECTING ALTERNATIVES TO THE SINGLE USE PLASTICS
in the Proposed
SINGLE-USE PLASTICS PROHIBITION REGULATIONS

While it may be interesting to pick this document apart line by line, it seems that it may be better to approach the document looking at it as a whole.

First, this document declares that it is intended to be useful for businesses and organizations that are providing single use plastics to the public. It is pointed out that the creation of this document was because of consultations that the government had with stakeholders, so one cannot blame the Government for the concept behind this document. That said, this document comes across as very patronizing. The reason being that business and organization decision makers are for the most part very well informed about concepts such as “the waste management hierarchy” and “the circular economy”. Businesses were following these concepts before they became buzzwords.

The point of this document is described as being to assist stakeholders in choosing alternatives that prevent pollution and reduce waste and help align business decisions with industry best practices. However, this document is a failure at both objectives.

This document is a failure because it offers alternatives in a patronizing way that are not practical to businesses. For example, regarding single use cutlery:

- “Businesses should consider giving consumers the option to specify whether they require single-use cutlery at all” – as if businesses have not thought of this one maybe 40 years ago. If these businesses could, they would not provide SUP cutlery because it costs money, but the market demands it.
- “Businesses could also consider providing more meal options that do not require use of cutlery” – In other words all take out food is supposed to be wraps and sandwiches that do not require cutlery? Or for greater clarity all take-out food is supposed to be the same? Not really all that practical in a market that demands variety.
- “Charging consumers a fee for single use cutlery may also discourage their use” It might also discourage customers from purchasing at your business?

The only thing that hints at being partially useful, but is not actually useful, is a mention of a compendium of existing guidelines for recyclability to be released later. It is unclear if this document would be helpful or not, but this is the only part of the document that could help businesses align with “best practices”.

It is unfair and improper for the government to promote the actions of certain Canadian businesses. No mention by name should be made of any business in this document. Holding up the actions of particular businesses and not mentioning others could be seen as possibly being in contravention of ethical standards. (Conflicts of interest, Competition Act) It is also unwise for the government to hold up individual businesses as implied examples of good environmental performance when the actual performance of these businesses is not known.

This whole document is objectionable and should not be promoted by the Government as containing anything of value to the audience it claims to be addressing.