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April 23, 2020

Executive Director
Program Development and Engagement Division
Department of the Environment
Government of Canada
Gatineau, QC K1A 0H3

Dear Executive Director,

Re: City of Toronto Staff Response to the *Draft Science Assessment of Plastic Pollution*

The City of Toronto (City) staff are pleased to provide comments in response to Environment and Climate Change Canada's and Health Canada's *Draft Science Assessment of Plastic Pollution* (*Draft Assessment*), published on February 1, 2020 in the *Canada Gazette, Part I, Volume 154, Number 5*. City staff recommend the consideration of these comments in the development of future plastic reduction policies and activities of the Government of Canada. The response reflects the City's expertise in areas of solid waste management, city planning, facilities management, public health, water (including drinking, waste and storm water), parks and forestry, and environment and energy.

Plastic pollution is prevalent in the City's natural environments and public spaces, including along the Toronto and Region shoreline of Lake Ontario which is one of 43 Areas of Concern identified through the Canada-US Great Lakes Water Quality Agreement that requires remediation to improve environmental conditions. The 2017 Great Canadian Shoreline Cleanup, a leading source of shoreline litter data in Canada, recorded over 2,000 pieces of plastic cutlery and 5,700 straws on Toronto's shorelines, including areas such as near the recently established Rouge Urban National Park. A 2016 litter audit conducted by the City found that plastics comprised 31 per cent of the litter found in public spaces. In public spaces, some of the City's more common litter items include: bottle caps; plastic bags and straws; and cigarette butts. Plastic pollution in the City is managed as best as possible by manual collection, vacuum sweeping, and through Clean Toronto Together, comprised of over 200,000 residents, students, businesses, organizations and community groups who come together for the annual city-wide cleanup of public spaces. The City also provides and collects from over 10,000 litter bin receptacles and over 9,500 parks garbage and recycling bins. Litter collection costs the City approximately 35 million dollars annually.

The City is committed to reducing plastics in the natural environments and public spaces through several strategic actions including:

- Implementation of the *Long Term Waste Management Strategy,* which places emphasis and focus on reduction and reuse of resources;

- Participation as a member of the National Zero Waste Council's Plastic Advisory Panel, C40 Cities, Great Lakes and St. Lawrence Cities, and the Federation of Canadian Municipalities;
- Participation in workshops led by the Canadian Council of Ministers of the Environment to contribute feedback on the Canada-wide Strategy on Zero Plastic Waste;

- Participation in Provincial discussions on transition of the Blue Box recycling program to Extended Producer Responsibility and advocating for transition and future regulations that will reduce plastic waste through increased recovery back into the circular economy;

- Several public education campaigns are held to reduce litter, such as an annual campaign focused on litter reduction that drives people to the City's litter web page; promoting the use of reusable items over disposable ones through various communication channels, including the annual waste collection calendar, the web (toronto.ca/reduce_reuse), and social media; and sponsoring a Plastic Free July; and

- Development of the City's Single-Use and Takeaway Items Reduction Strategy.

Comments on the *Draft Assessment*

1. Provide clarification for the terms: biodegradable, bioplastic, compostable, and digestible.

The section of the *Draft Assessment* detailing biodegradable plastics and bioplastics should be expanded to provide further clarification on the terms biodegradable and compostable as they relate to biodegradable plastics and bioplastics. The *Draft Assessment* notes that bioplastics do not possess any inherent superiority to petroleum-based plastics and do not necessarily biodegrade more readily than regular plastics. It should also state that bio-based plastics can be chemically the same as petroleum-based plastics, and therefore fully recyclable, or they can be chemically different and not recyclable. Providing a clear understanding of the composition of these plastics is important as a lack of standardization, misleading labelling on products, and green washing will continue to cause confusion surrounding proper disposal of these products.

In addition, the term compostable does not necessarily mean the product is suitable for all organics processing technologies as some products are not compostable in an anaerobic digestion system. The distinction should be made between aerobic composting and anaerobic digestion and how biodegradable plastics and bioplastics may behave in different types of organics processing systems.

2. Considerations for future regulations.

The *Draft Assessment* notes that most of the plastics are removed from wastewater during treatment, however, wastewater effluent still remains a source of plastics to the environment. We would caution against imposing additional requirements for plastic removal from wastewater. Microplastic removal from the liquid stream of Toronto's wastewater treatment system with secondary treatment is very high (86-99.8 per cent), and if macroplastics are included, the degree of removal is even higher. A higher degree of microplastic removal would require substantial new infrastructure at relatively little benefit as the amount of microplastics removed would only be increased by a small amount. The City's water treatment plants would need new effluent pumping stations due to insufficient head, in addition to a tertiary treatment process. The cost of adding tertiary treatment and effluent pumping stations at the Toronto wastewater treatment plants would be more than one billion dollars. Significant investments are underway in Toronto which seek to address Lake Ontario being a Great Lakes Area of Concern, including the 2.5 billion dollars the

Don River and Central Waterfront Project (DR&CW), which is currently planned to be implemented in phases over 25 years (to 2038). The project is the largest combined sewer overflow control project in Canada and is the City's most significant water pollution control initiative. It is aimed at delisting Toronto as an Area of Concern, and ultimately improving the ecosystem health of the City's waterfront and Lake Ontario. The City recommends the consideration of these costs to municipalities and the benefits of federal and provincial investments in any further study of enhancing wastewater treatment to remove plastics.

3. Conduct further research on the impacts of compostable plastics in organics processing.

The *Draft Assessment* suggests that *biodegradable plastics* and *bioplastics* may be an alternative to reduce the environmental impact of conventional plastics and that further study should be conducted to determine if they are beneficial from an environmental perspective. The City's Green Bin program, through the creation of high-quality compost, returns nutrients from food waste back to the agricultural system. The addition of biodegradable products into organics processing could potentially add more plastics into the environment and the City recommends further study into these potential impacts. In addition, biodegradable plastics and bioplastics are not compatible with the City's current anaerobic digestion organic processing technologies. The behaviour of these products in different composting systems should also be considered in further studies, as well as the associated costs and opportunities for federal and provincial investments to advance this work.

4. Consider other environmental impacts of plastic production and plastic pollution.

As the Centre for International Environmental Law notes in their 2019 report *Plastics and Climate: The Hidden Costs of a Plastic Planet,* almost all plastic begins as a fossil fuel, with greenhouse gases (GHG) emitted throughout the lifecycle, including the management of plastic waste.[1] In the manufacturing sector, plastic refining is one of the more prominent greenhouse gas-intensive industries. The plastics industry alone contributes enough GHGs to prevent the global community from meeting set carbon emissions targets. The *Draft Assessment* should consider potential health and environmental impacts not only of plastics found in the environment, but also of other pollutants created throughout the lifecycle of a plastic product.

City staff also suggest that the Government of Canada undertake further study on the impacts of bioplastic products and packaging that may replace typical food and takeaway packaging and utensils. There have been chemicals introduced to make these products for which long-term impacts on human health and the environment are not yet known (i.e., polyfluoroalkyl substances).

5. Place greater emphasis on circular economy principles and reduction measures.

The City supports the Canadian Council of Ministers of the Environment's *Canada-Wide Action Plan on Zero Waste*, which focuses on "product design, single-use plastics, collection systems, recycling capacity, and domestic markets,"[2] including actions to harmonize Extended Producer Responsibility (EPR) and reduce Single-Use and Takeaway Items (SUTI). The supply chains of producers, manufacturers, distributors, and other stakeholders are interprovincial, and a harmonized approach to EPR and SUTI reduction can help to establish national standards,

[1] *Plastics and Climate: The Hidden Costs of a Plastic Planet.* Link: https://www.ciel.org/wp-content/uploads/2019/05/Plastic-and-Climate-FINAL-2019.pdf
[2] *Canada-Wide Action Plan on Zero Waste*. Link: https://www.ccme.ca/en/current_priorities/waste/waste/zero-plastic-waste.html

thereby incentivizing organizations in the supply chains to optimize the incorporation of EPR and SUTI standards into their business practices to support a circular economy at scale.

In accordance with the circular economy principles, material replacement and recycling do not follow the waste hierarchy, and emphasis should be placed on reduction rather than the use of alternative sources or recycling. Although residential recycling rates are significantly higher than that of the ICI sector, priority should be placed on the reduction of single-use items where possible and recovery technologies that successfully direct plastic back into regional and circular systems.

6. Collaborate with all levels of government to provide consistent information to the public.

The *Draft Assessment* states that in 2016 an estimated nine per cent of plastics were recycled. This can be misleading to the public because that percentage incorporates Industrial, Commercial, and Institutional (ICI) figures, whereas the residential recycling rate is approximately 60 per cent. This needs to be clarified, and a need for improvement in ICI recycling rates should be highlighted.

Distinguishing between recyclable plastic and compostable plastic can be difficult for residents and the City continues to educate the public on proper disposal of these products through public education campaigns. Mixing these items as a result of public confusion for residents and businesses can contaminate the City's Blue Bin and Green Bin programs. It may be difficult for City recycling facilities to sort the items properly and can cause the integrity of the plastic bales to be compromised and thereby lowers the quality of recyclable materials to be sold on the market. In addition, this type of contamination increases processing and promotion and education costs. Coordinated research, messaging, and policy development by all levels of government, including municipalities, can help consumers make informed choices regarding products and packaging. The scientific body of research on plastics in the environment, and lack of research on human health impacts, further illustrates the need for a partnership approach between all governments to reducing these items from entering our environment.

7. General comments on the use of plastics.

While the City recognizes that the focus of the *Draft* Assessment is on the current state of science regarding the impacts of plastics pollution on the environment and human health, the City would also like to provide the following additional comments relating to the use of plastics in general:

- In the City of Toronto, systems are available for plastics to be recycled or disposed of properly. The City recommends consideration into investment to drive additional plastic recycling processing in Canada in order to discourage reliance on overseas markets.

- The City recommends further study into national requirements for recycled content in plastic products.

- From a solid waste management perspective, plastics can add value in the impact it has on reducing food waste and this value should be considered in the development of plastics policies.

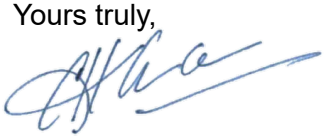
- Plastics enter the environment by people and there is a need for increased education, awareness and enforcement to decrease instances of litter and plastics pollution in the environment.

Thank you for the opportunity to provide comments on the *Draft Assessment*. The City of Toronto looks forward to involvement in any future consultations and City staff commend the Government of Canada's continued commitment to address plastic pollution and waste in the environment.

Should you have any questions regarding our submission, please contact Annette Synowiec, Director of Policy, Planning & Outreach, Solid Waste Management Services, by email at Annette.Synowiec@toronto.ca or by telephone at 416-392-9095.

Thank you for your consideration.

Yours truly,



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Copy to: Annette Synowiec, Director, Policy, Planning & Outreach, Solid Waste Management Services

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December 8, 2020

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Director of the Plastics and Marine Litter Division
Environment and Climate Change Canada
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Dear Director:

Re: City of Toronto Staff Comments to the *Discussion Paper: A Proposed Integrated Management Approach to Plastic Products to Prevent and Waste* and *Pollution* and the *Proposed Order Adding Plastic Manufactured Items to Schedule 1 of the Canadian Environmental Protection Act, 1999*

The City of Toronto staff are pleased to provide comments in response to Environment and Climate Change Canada's and Health Canada's Discussion Paper: *A Proposed Integrated Management Approach to Plastic Products to Prevent Waste and Pollution* (*Discussion Paper*) published on October 7, 2020, and the proposed *Order Adding a Toxic Substance to Schedule 1 to the Canadian Environmental Protection Act, 1999* *(Proposed Order)*, published on October 10, 2020 in the *Canada Gazette, Part I, Volume 154, Number 41*.

In April, 2018, City Council requested the Government of Canada to develop a national strategy that addresses plastic pollution, including reducing consumer and industrial use of single-use plastics.[1] In July 2018, City Council directed the General Manager, Solid Waste Management Services, to work with government and industry partners to investigate solutions for reducing the amount of waste and debris that flow into Lake Ontario, focusing particularly on plastic contamination and single-use items.

The comments outlined in this letter reflect the City of Toronto's expertise in the areas of solid waste management, city planning, facilities management, public health, water (including drinking, waste and storm water), parks and forestry, and environment and energy. It also reflects the City's goal to reduce plastic waste and desire to work closely with the Government

[1] City of Toronto Council decision: *State of Toronto's Blue Bin Recycling Program* (2018). Link: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PW28.8

of Canada protect the environment, health and safety of Canadians by continuing to share robust data sets, policy work and research the City undertakes.

I. COMMENT SUMMARY

The following is a summary of the City of Toronto's comments outlined in this letter and focus on key areas with goals to reduce plastic pollution. Detailed responses to the consultation questions posed in the *Discussion Paper* are provided in Appendix A, and additional comments can be found in Appendix B.

1. Managing, reducing, and eliminating single-use and problematic plastics:

- Special consideration must be given to understand how persons living with disabilities, equity-seeking groups, Indigenous people, and programs that support marginalized communities will be impacted; and

- The Toronto City Council supports a transition to a circular economy and the aspirational goal of zero waste. City staff do not support substituting one single-use item for another harmful item, including "compostable" or "bio-degradable" items. Such substitutions run counter to circular economy principles and goals.

2. Establishing performance standards:

- The City of Toronto supports the use of recycled content to reduce the amount of virgin materials used in the production of packaging and products;

- Minimum recycled content for plastic products should be based on post-consumer recycled content;

- The greatest positive impact on the recycled resin market will be on the lowest-value resins;

- Consideration for recyclability and absence of a sustainable end market of recycled plastics should be used to establish performance standards;

- The Government of Canada should lead by setting national standards for minimum recycled content to address any potential competition barriers. This should be done in collaboration with partners such as provinces, territories, municipalities, industry, and other stakeholders; and

- The Government of Canada should work with Indigenous communities, provinces, territories, and municipalities to develop guidelines that can serve as the foundation for circular procurement policies, targets, standards, and specifications.

3. Ensuring end-of-life responsibility:

- The Government of Canada should support a consistent approach to Extended Producer Responsibility (EPR) by standardizing producer reporting requirements and targets across provinces and territories; and

- Financial support for small- and medium-sized businesses should also be established in order to stimulate investment in infrastructure and logistics.

4. Canada should ratify the amendments to the Basel Convention:

- The Government of Canada should ratify the amendments to the Basel Convention set to be implemented in January 2021 to further show its global commitment to the proper management of plastics.

5. Municipal obligation to bear additional costs:

- The Government of Canada must acknowledge the roles and responsibilities of various governments and recognize that federal and provincial leadership and action is required to implement, communicate and enforce any new strategies. Federal decisions must not burden municipalities, which do not have the resources for such a role without additional financial support.

6. Requiring clear and transparent information for consumer education:

- Clear guidelines is required on what can be printed on products (e.g., new compostable mailer bags and coffee pods) in terms of recyclability and compostability. The absence of information can result in confusion among the public and increased contamination in municipal waste management systems, which leads to negative financial and operational impacts resulting in increased user-rates or taxes. Ultimately, the impact is that plastic waste will not be reduced for Canadians if consumer education efforts are not addressed.

7. Additional Items to be considered for restriction:

- The Environmental Protection Agency's (EPA) precautionary principle should be used to support additional bans or restrictions to other items that are threatening the natural environment.

8. Recognizing the role of recovery technologies:

- Advanced recovery technologies such as chemical recycling and thermal processing for energy recovery may support the recovery objectives of a circular economy and maximize the value of residual material following waste prevention, reduction, reuse, and mechanical recycling efforts. However, many are emerging technologies without a proven track record of successful implementation in Canada. Further effort is required to understand the environmental and social impacts of these technologies.

- The Government of Canada could direct investment toward research and development, implementation and capital delivery, and monitoring programs to ensure the efficacy and environmental, social and financial performance/impacts of chemical recycling and thermal processing as part of a circular plastics economy.

II. COMMENTS on the PROPOSED ORDER

The City supports the Government of Canada taking the initial regulatory steps necessary to pursue further mandates on plastic materials and plastic waste and welcomes the opportunity to consult further with the federal government on the implications of such future steps.

Thank you for the opportunity to provide comments on the *Discussion Paper* and the *Proposed Order*. The City of Toronto looks forward to ongoing collaboration with the Government of Canada, including involvement in any future consultations. City of Toronto staff commend the Government of Canada's continued commitment to address plastic pollution and waste in the environment.

Should you have any questions regarding our submission, please contact Annette Synowiec, Director of Policy, Planning & Outreach, Solid Waste Management Services, by email at Annette.Synowiec@toronto.ca or by telephone at 416-392-9095.

Thank you for your consideration.

Yours truly,

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General Manager
Solid Waste Management Services

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APPENDIX A

DETAILED COMMENTS – DISCUSSION PAPER: QUESTIONS

The City of Toronto has responded to the Government of Canada's 13 Questions outlined in the *Discussion Paper.*

1. Managing Single-Use Plastics

Q1. Are there any other sources of data or other evidence that could help inform the development of the regulations to ban or restrict certain harmful single-use plastics?

A1. The Government of Canada should look at collection, litter, and processing audit data from municipalities and material recovery facilities to understand the process of how restricted items flow through the waste system and how they are recovered. Data variances between municipalities across the country would provide valuable insight into where the gaps and challenges are, and where the system is successful from a regional perspective.

The City of Toronto's most recent public audit data is from 2016 and is posted on our website.[2] The City of Toronto's 2020 litter audit data results are currently being analyzed for reporting and should be finalized in early January, 2021. This recent litter audit uses the same methodology and locations as previous audits, as well as an expanded category to include additional single-use and takeaway items and personal protective equipment. The final results will also be available for public access as well.

Another source of evidence is the public opinion data and information collected by various municipalities and provinces when consulting with the public on measures to address single-use plastics. The City of Toronto's recent *Single-Use & Takeaway Item Reduction Strategy* had two phases of public consultation between 2018 and 2019 in which over 60,000 responses were received from the public and stakeholders, including those from industry, non-governmental organizations, environmental groups, and equity-seeking groups participated. The results of the first phase of public consultation are available on the City of Toronto's website for review.

Additionally, the Government of Canada should undertake further scientific study and analysis on the impacts of alternative products and packaging such as bioplastics (and other materials, e.g., wood) that may replace any of the six items being recommended for restriction. There may be chemicals introduced to make these products for which long-term impacts on human health and the environment are not yet known or that are persistent in the natural environment (i.e., polyfluoroalkyl substances).

Q2. Would banning or restricting any of the 6 single-use plastics identified impact the health or safety of any communities or segments of Canadian society?

[2] *2016 Toronto Litter Audit Summary Report*: Link: https://www.toronto.ca/wp-content/uploads/2017/10/8ed5-Toronto-Litter-2016-Final-Report_App_Final.pdf

A2. The City of Toronto recommends that any of the Government of Canada's proposed bans or restrictions on the six single-use plastic items identified should take into consideration the accessibility needs and other impacts on equity seeking groups and Indigenous peoples through public consultation. As part of the City of Toronto's public consultation for its Single-Use & Takeaway Item Reduction Strategy, the City of Toronto engaged with the accessibility community to identify potential impacts that restricting single-use items would have. This is explained further in the answer to Question 3.

There are many programs and services operating in communities across the City of Toronto, which offer food services, such as student nutrition programs, respite sites, shelters and drop-ins. All operate in accordance with the *Ontario Food Premises Regulation (FPR) O.493/17*, while respite sites, shelters, and drop-ins also operate in accordance with *Toronto Shelter Standards, section 9.2*. These programs may operate out of locations that were not originally designed to offer meal programs and may not be equipped to properly sanitise multi-use cutlery, cups, and plates to prevent the spread of food-borne illnesses. As a result, they may only be able to easily or consistently use single-use cutlery, cups, and plates. In addition, a shelter may occasionally decide to use single-use cutlery, cups, and plates as a precautionary measure to ensure the safety of clients, staff, and volunteers. The City of Toronto requests that the Government of Canada recognize the significance that these programs offer to marginalized members of our community and work to mitigate negative financial impacts the ban or restriction on the six single-use plastic items may have on the operation of these programs.

The Government of Canada can provide funding to support pilot projects for service providers, including municipalities who may operate or provide food programs to vulnerable communities. Such projects can promote collaboration in identifying and implementing innovative waste reduction solutions to transition away from single-use plastics used for food programs. These pilot projects would showcase best practices and case studies that promote a less disruptive transition while still giving organizations who support vulnerable and marginalized people the ability to participate in the circular plastics economy.

Q3. How can the government best reflect the needs of people with disabilities in its actions to ban or restrict certain harmful single-use plastics?

A3. The City of Toronto's *Single-Use & Takeaway Item Reduction Strategy* included outreach with persons with disabilities through engagement with the Toronto Accessibility Advisory Committee.[3] The accessibility community advised the City of Toronto that plastic straws in particular are critical for the safe consumption of food and beverages by certain persons with disabilities. Straws made of other materials such as paper or metal either do not perform and could introduce physical challenges drinking and eating as well or pose a safety risk. Any new restriction by the Government of Canada should not put any additional undue hardship on persons with accessibility needs, such as carrying their own plastic straws, or self-identifying as an individual with a disability in order for an establishment to provide them with a plastic straw. For this reason, the City of Toronto recommends the Government of Canada consider

[3] *Single-Use & Takeaway Item Reduction Strategy* presentation to the Toronto Accessibility Advisory Committee (October 2019). Link: http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.DI5.4, and Video Link: http://app.toronto.ca/tmmis/video.do?id=16036

an "ask first/by request" approach for plastic straws. This approach would require either the establishment to ask the customer if they want a straw, or the customer would have to request for a straw to be provided. Using this approach to restrict rather than ban plastic straws can reduce the amount of straws unnecessarily provided to customers while ensuring that the accessibility community maintains the same level of access to items they require to consume food or beverages.

If plastic straws are banned, then there should be an available alternative that is supported by the accessibility community and at the same time does not create additional waste or challenges in recycling operations.

Q4. Should innovative or non-conventional plastics, such as compostable, bio-based or biodegradable plastics be exempted from a ban or a restriction on certain harmful single-use plastics? If so, what should be considered in developing an exemption that maintains the objectives of environmental protection and fostering a circular economy for plastics?

A4. No. Exemptions should not be considered for innovative and non-conventional plastics. A circular economy approach, like the traditional waste hierarchy, prioritizes eliminating and reducing waste and reusing products above all else.

Results from the City of Toronto's public consultation on single-use and takeaway items found that the public is motivated by wanting to ensure that they are properly managing their waste. Concerns about climate change and environmental degradation were also found to be key drivers for consumer purchases of products marketed as compostable, bio-based or biodegradable. When consumers are misled about the "eco-friendliness" of their purchases as promoted on some products and packaging, it becomes unfair and unnecessarily costly for Canadians, who ultimately bear the added cost of contamination in municipal systems. Through significant investments in its public education campaigns, the City of Toronto strives to educate consumers about the proper disposal of the products in order to reduce contamination in the waste stream.

Any alternative items created to replace the six items being proposed may pose new challenges in integrated waste management systems, potential harm to the environment, cause challenges in municipal collection and processing operations and create additional confusion for Canadians. For instance, innovative or non-conventional plastics labelled as "compostable," "bio-based" or "bio-degradable," which are becoming more common as alternatives to conventional plastic items, can contaminate plastic recycling and generally do not decompose in municipal composting technologies and do not digest in the City of Toronto's anaerobic digestion infrastructure or the natural environment. In recycling facilities, sorting technologies cannot distinguish between compostable or biodegradable plastics and the forms of plastic that are currently accepted in recycling programs without significant investment into costly optical sorting equipment. Organic processing systems, such as the City of Toronto's Green Bin program, are designed to achieve circular economy objectives in part through regenerative contributions made by the output of anaerobic digestion and a usable digest product that can be turned into compost. The Ellen MacArthur Foundation's definition of compostable packaging identifies the challenges faced by recycling and organic waste processors: "A packaging or packaging component is compostable if it is in compliance with relevant international

compostability standards, and if it's successful post-consumer collection, sorting, and composting is proven to work in practice and at scale."[4]

Through its Green Bin Program, the City of Toronto is able to generate high quality compost that can improve soil health and support agricultural systems. If contaminants, such as microplastics and harmful persistent chemicals, increase in the organic waste stream, it poses a risk to the circular outcomes sought through this innovative system. Nutrients cannot be returned to the soil if it is not safe to do so due to contamination. As the Government of Canada's report on *Science Assessment of Plastic Pollution* notes, plastics can be found in the food that humans consume and throughout the City of Toronto's ecosystems, which could pose a risk to human and environmental health.[5] Further analysis is required to understand the impacts of innovative and non-conventional plastics on humans and planetary health.

The Government of Canada should ensure an ongoing review of the necessity of certain single-use items that have not been identified for restriction throughout the implementation, monitoring, and evaluation of its plan. Through innovations in industry, many single-use products that are currently essential for health and safety reasons may become redundant or obsolete in the future. It is important to ensure that any exempt innovative or non-conventional materials in early iterations of the plan be reassessed on an ongoing basis to ensure they do not limit progress on circular plastics outcomes; and to ensure that exemption lists do not create disincentives and/or de-stimulate innovation and progress by industry to eliminate these items. The Government of Canada should consult in particular with academics and practitioners in health care prior to establishing material exemptions.

2. Establishing Performance Standards

Q5. What minimum percentage of recycled content in plastic products would make a meaningful impact on secondary (recycled resin) markets?

A5. The City of Toronto is not able to comment on the specifics of what the minimum percentage of recycled content should be for plastic products however, it should be determined through science-based investigation working with all stakeholders. Consideration should also be given to any limitations for recycled content for food-grade plastics and pharmaceutical applications.

Consideration and clear articulation of how the percentages of recycled content apply as relates to the use of post-industrial (or pre-consumer content) and post-consumer recycled content in plastic products is needed. The percentage of recycled content in plastic products also needs to consider the intended use for the plastic product and packaging as it may need to vary in order to retain its designed physical integrity during use.

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[4] Ellen MacArthur Foundation *New Plastics Economy Global Commitment* (Appendix II – Definition of Compostable Packaging). Link: https://www.ellenmacarthurfoundation.org/assets/downloads/13319-Global-Commitment-Definitions.pdf

[5] *Science Assessment of Plastic Pollution* (October 2020), Government of Canada. Link: https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/science-assessment-plastic-pollution.html

Q6. For which resins, products, and/or sectors would minimum recycled content requirements make the greatest positive impact on secondary (recycled resin) markets? Why?

A6. Minimum recycled content in lower valued, hard to recycle resins would have the greatest impact, such as low density polyethylene (LDPE), or packaging of non-food items (e.g., electronics). Resins from post-consumer plastics such as plastic water bottles, beverage and detergent containers made of polyethylene terephthalate (PET), high density poly ethylene (HDPE) and Polypropylene (PP) may not make as great of an impact on secondary recycled resin markets since, in some cases, they can already be made from close to 100 per cent recycled content.

Additionally, some "end markets" for recycling may be dependent on specific resins and quantities. For example, the plastic film market in a municipality is influenced by the tonnages of plastic checkout bags collected through the recycling stream. If large tonnage quantities are removed from the system, alternative systems to capture the remaining quantities and recycle them could become less efficient leading to less capture of the material. By banning plastic checkout bags, other types of plastic bags such as plastic produce bags and overwrap may have less efficiencies of scale in markets for recycling. A plan should be established that identifies these risks and provides solutions that prevent the loss of "end markets" for the plastic items not being proposed as a part of the ban while still pursuing an ambitious sustainability agenda.

Q7. Which resins, products or sectors are best-placed to increase the use of recycled plastic and why?

A7. Products that use higher value resins such as PET, HDPE and polypropylene (PP) are well placed to increase and mandate the use of recycled plastic. Polyethylene (PE) film and expanded Polystyrene (EPS) currently have limited to no market due to their low value resin. Any requirement for a minimum recycled content would drive up demand. However, for the reasons described above in the answer to question 6, banning plastic checkout bags and EPS containers may decrease the end market available volumes for the respective resins.

Packaging of non-food items (i.e., electronics) is a sector that is best-placed to increase the use of recycled content as the purpose of the packaging is to only protect the product from damage as opposed to packaging used to protect consumables where consideration should be given to impacts on human health.

Q8. Which plastic products are not suitable for using recycled content due to health, safety, regulatory, technical or other concerns?

A8. The City of Toronto does not have the expertise to comment on this question; however, it should be determined through science-based investigation working with all stakeholders.

Q9. What should be considered in developing timelines for minimum recycled content requirements in different products?

A9. Provincial and territorial EPR timelines need to be considered in developing timelines for minimum recycled content requirements. Management targets that producers will be required to meet, which incorporates incentives to use recycled content to help offset targets, come into effect in 2026 onwards. From a timing perspective, if the Government of Canada introduces any policy measures to mandate recycled content, it would be better to do this sooner rather than later since their policies would override any provincial ones and it'll be mandated versus only voluntary in the Ontario Blue Box Program regulation.

Timelines should also consider how best to leverage existing competitive and mature markets and re-processors for plastic products, such as the PET market in order to accelerate use of minimum recycled content. These existing industries are in a stronger position to use their established market presence to help create new markets for other resins, advance recycled content in products and develop best practices. Timelines should also consider the immediate opportunity to build demand for recycled content production in weaker markets such as LDPE. This market is greatly challenged to be competitive with virgin resin costs even though there are existing and proven reprocessing industries with potential markets in place within Canada. This is of immediate concern and present a unique chance to stimulate the sector before they shut down or scale down reprocessing efforts due to the inability to compete in resin costs.

Q10. What would be the advantages and disadvantages to setting minimum percentage requirements that are distinct for each product grouping, sector, and/or resin?

A10. Recycled content requirements should be set at a sub-category level (e.g., PET, HDPE, LDPE), rather than broad categories (e.g., rigid, flexible) as their product recyclability and marketability are not all equal. Setting requirements at broad category levels could "mask" performance of lower-performing materials, also known as "free-riders." For example, lower-performing rigid plastics will free-ride on plastic beverage bottles under the broad category of "rigid plastics" with higher recycled content. Advantages of having separate management requirements will give a line of sight to poorer performing plastics, which can be monitored and enforced to improve performance.

Consideration should be given to an unintended consequence and risk of an industry shift from high-value resin to low-value resin if the high-value resin has a minimum recycled content requirement greater than that of a low-value resin. This is especially likely if the low-value resin product or packaging is able to perform the same function as the higher-value product. The same concern is shared regarding a compostable resin which does not currently have reprocessing value and relies on soil amendment markets for end of life management.

Q11. How could compliance with minimum recycled content requirements be verified? How can the Government and industry take advantage of innovative technologies or business practices to improve accuracy of verification while minimizing the administrative burden on companies?

A11. To verify the recycled content in products, manufacturers would need to demonstrate the amount of product produced and supplied into Canada each year and the amount of post-consumer resin (not post-industrial sourced resin) included. This data could be validated through reporting mechanisms and industry certification and provided to a governing body to track and verify/audit. Challenges may arise in verifying content of imported plastic packaging and products as confidence in the integrity of some nation state's labelling standard of recycled content may be lacking. Consideration should be given to mitigate any potential trade issues between countries that may arise.

Q12. Besides minimum recycled content requirements, what additional actions by the government could incentivize the use of recycled content in plastic products?

A12. Additional actions by the government that could incentivise the use of recycled content in plastic products could be to develop a national standard on recycled content to help address competition issues and help level the playing field to incentivise the use of recycled content in plastic products. Voluntary measures adopted by industry will not go far enough to observe significant results. It is also critical that there are incentives to stimulate the industry, especially with regards to creating new processes and mechanical or chemical technologies to use recycled plastics and recover the value in plastic products.

A coordinated approach between federal, provincial and municipal governments on circular plastics procurement, further efforts by the Government of Canada to generate standards, specifications, guidelines, a certification process, and other forms to ensure success for minimum recycled content in a wide variety of products, would be welcome by the City of Toronto. These tools would enable the City of Toronto to adopt circular plastics approaches in purchasing and accelerate implementation of Toronto's Circular Procurement Framework. The Government of Canada should consider a specific work stream, in partnership with provinces, territories, and municipalities, to co-develop guidelines or a framework that can be used in government spending/procurement, thereby leveraging public spending to transition Canada to a circular plastics economy.

3. Ensuring End-Of-Life Responsibility

Q13. How can the Government of Canada best support provinces and territories in making their extended producer responsibility policies consistent, comprehensive, and transparent?

A13. One way the Government of Canada can best support provinces and territories is by setting minimum requirements for material collection that must be met by all provinces and territories through their respective blue box EPR programs. EPR can be further supported by the Government of Canada by implementing the recommendations below which will further increase EPR's integrity nation-wide:

- Consistent reporting requirements for producers of packaging and packaging-like products will reduce administrative burden and allow for standardized performance reports;

- Require sub-category reporting, which allows for consistent monitoring and enforcement, and producers have the same reporting requirements regardless of the EPR program;

- Designation of all products, packaging and product-like packaging supplied into the market place;

- Convene with provinces and territories through the CCMEs as soon as possible as Ontario is currently consulting on a draft Blue Box Program regulation;

- Establish a national working group to encourage and support collaboration and exchange of knowledge and experience among provinces and territories, informed by municipalities, in matters related to integrated plastic management through EPR;

- Provide targeted investment to support education, awareness and enforcement to decrease instances of litter and plastics pollution in the environment; and

- Examination of potential health and environmental impacts of other pollutants created throughout the lifecycle of a plastic product.

The Government of Canada should also consider supports for business, in particularly retailers and small to medium-sized enterprises (SME), to stimulate investment and innovation in infrastructure and logistics required for take-back systems. Given the shift to EPR in provinces such as Ontario, and given the likely range of products captured under the Government of Ontario's approach, a wider range of convenient and financially viable take-back systems will be necessary to ensure effective plastic recovery. Retail businesses will need to be players in these EPR systems, and given the financial hardship faced by SMEs, specifically the economic impacts of COVID-19 on SMEs and main street retailers, consideration should be given to the investment and infrastructure necessary to enable retailers to participate in a circular plastics economy. This type of intervention fits logically in a green recovery approach to the global pandemic and local economic revitalization. This can be seen on the *Discussion Paper*, page 4, bullet 3: "improve the value recovery of plastic products and packaging." With adequate financial support from the Government of Canada, municipalities may be better positioned to implement federal programs geared at SMEs, given municipal proximity to local business communities.

APPENDIX B

ADDITIONAL COMMENTS

The following are the City of Toronto's additional comments on the *Discussion Paper* that would strengthen the Government of Canada's approach to plastic products to prevent waste and pollution.

1. Plastic Waste Amendments to the Basel Convention

As part of its plastics strategy, the Government of Canada should ratify the Plastic Waste Amendments to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal that take effect on January 1, 2021, and work with the incoming U.S. federal administration to modify the Canada-U.S. Arrangement on Plastic Trade to align with this approach.

In restricting the six items outlined in the *Discussion Paper* and adding "plastic" to Schedule 1, the Government of Canada is advancing the plastic strategy with the goal to lessen the harmful impact that plastic has on the natural environment, and on animal and human health, within our own borders. Consistent with that approach, the City of Toronto encourages the Government of Canada to ratify the Plastics Waste Amendments to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, which take effect on January 1 2021.[6] Canada can show its commitment to the global strategy by ensuring that the management of plastic waste generated inside Canada is held to the same standard outside of our borders as it is within it.

Any arrangement made between Canada and non-parties, such as the US-Canada Arrangement, must comply fully with Article 11 of the Convention and the Government of Canada should be willing and able to demonstrate compliance to Canadian municipalities.

2. Methods Used to Collect Data

2.1 Introduction (page 1)

Clarification is required regarding the statement "over 3 million tonnes of plastics were discarded as waste in Canada in 2016, and only 9 per cent was recycled." This statement refers to "all plastic" including plastic in mixed material items that would otherwise not normally be recycled as they are not accepted in most municipal recycling programs. For example, a plastic chair with metal legs or plastic multi-layered pouches would need to be disassembled as they include other materials or multiple-resin types. This statement without clarification has led to many residents questioning the efficacy and legitimacy of municipal plastics recycling programs.

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[6] *Plastic Waste Amendments to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (May 2019)*. Link: http://www.basel.int/Implementation/Plasticwaste/PlasticWasteAmendments/Overview/tabid/8426/Default.aspx

2.2 Achieving Zero Plastic Waste (page 2)
Clearer distinction between personal care products and toiletries are needed as noted in the statement "working with industry towards reducing the use of microbeads in personal care products." Microbeads are already prohibited in toiletries, natural health products, and non-prescription drugs in Canada. The Government of Canada needs to clearly define what it means by "personal care products" and whether the definition includes "toiletries." In general, this relates to the need for the Government of Canada to use plain, clear, consistent, and defined language that both industry and the public can understand.

2.3 Rationale for an integrated management approach to plastics (page 3)
The statement "collection rates are low: only 25 per cent of plastics are collected and sent to a sorting facility (e.g., through curbside collection, recycling depots, or deposit-refund systems) and only a fraction of collected plastics is recycled because of contamination, infrastructure deficiencies, and lack of markets" is misleading. This should be revised to clarify that only 25 per cent of plastics are in the form of products and packaging that are able to be recycled through existing systems (such as curbside collection). The rest of the plastic products are generally not accepted in municipal recycling systems. The statement as written can be misinterpreted to suggest that more plastics should be put in the Blue Box. The concern is that municipal recycling systems are designed for common products and packaging that are recoverable at scale and require consistent end markets.

EPR for plastics must contemplate systems beyond municipal/curbside collection. It is critical that the Government of Canada's messaging is clear to this point, because misinterpretation risks generating contamination or misplacing items into municipal Blue Box programs, which has a corresponding cost impact on the public.

2.4 Recycled Content Requirements (page 14)
The need for the Government of Canada to clarify what is considered recycled content is raised by identifying the "potential applicability of different types (for example post-consumer resin, pre-consumer resin) in meeting performance standards." The City of Toronto recommends that post-consumer resin (as in materials recovered from recycling programs) is better to define the resin requirements in recycled content because producers will be incentivized to recover and use their own materials from recycling programs rather than using scraps from the manufacturing or production line (post-industrial or pre-consumer).

2.5 Improving and expanding extended producer responsibility in Canada (page 15)
Special consideration should be given to the statement "companies are made responsible for meeting outcomes such as collection targets, but are given the freedom to decide how best to meet those targets." Having the freedom to decide how to reach those targets may result in companies ceasing collection and recycling efforts once their targets have been reached. EPR must be regulated beyond targets or numbers.

3. Items Considered for Restriction

3.1 Plastic checkout bags – Clarification is required around the term "plastic checkout bags." The term can refer to retail shopping bags, takeout bags from food establishments, or both. In order to ensure a level playing field, and to limit the ambiguity surrounding establishments that may be affected, the City of Toronto recommends restricting plastic bags wherever there is a point of sale.

3.2 Food service containers from problematic plastics – A clear definition is required for "food service containers from problematic plastics." The City of Toronto sees this as:

- Any beverage container or cup used to store hot or cold beverages, or a container used to store hot or cold food;

- Challenging to recycle on a large scale due to the low resin value, complexity of the material (i.e., multiple materials used together), or challenges to properly sort the material in an industrial recycling facility; and

- Items commonly found as litter.

3.3 Beverage Cups (Hot and Cold) –The plastics used for beverage cup lids could be made from problematic plastics and could also be restricted using the same methodology used to restrict food service containers made from problematic plastics.

3.4 Coffee Pods - Coffee pods should be noted as an example of the challenges municipalities, recycling facilities and organic processing facilities face with material substitution in products. In Ontario, coffee pods are already addressed in two potential policy measures (*Food and Organic Waste Framework* and *Blue Box* program), which creates confusion for residents on which waste stream to dispose this item in and could also create a split amongst producers that create pods to be managed in the recycling stream or organics stream. It could also lead to unintended consequences by creating an incentive for producers to potentially change plastic-based polypropylene to "compostable" polypropylene to avoid producer responsibility if they design their products to be managed in a waste stream that has no steward obligation.

3.5 Other single-use plastic items - The "precautionary principle," which is discussed in the preamble of the *Canadian Environmental Protection Act, 1999,* as a guiding element states: "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.[7]" Under "Banning or restricting certain harmful single-use plastics as early as 2021," the *Discussion Paper* states that "For other single-use plastics, currently available data on the use, management and prevalence in the environment do not support a recommendation for a ban or a restriction at this time." The statement is a contradiction to the precautionary principle as it has already been stated that the lack of full scientific certainty is not an impediment to legislating restrictive measures. The City of Toronto supports action to be taken supported

[7] *Canadian Environmental Protection Act, 1999*. Link: https://laws-lois.justice.gc.ca/eng/acts/c-15.31/page-1.html

by the precautionary principle and encourages the Government of Canada to consider the inclusion of the following additional items to its list to ban or restrict:

- Hot and cold beverage containers;
- Bio-degradable, oxy-degradable, compostable plastics;
- Other types of single-use plastic bags;
- Snack food wrappers;
- Products made from multiple materials (multi-packaging);
- Plastic water bottles;
- All EPS that is used for the packaging of food (i.e., meat and fish trays);
- All EPS used in packaging of non-food products;
- EPS used in faux-stucco building facades which is commonly shaved down during installation prior to painting leading to extensive EPS particles entering the surrounding environment; and
- Coffee Pods.

4. Other Considerations for Municipalities

4.1 Hardship for Municipalities - It is critical that the Government of Canada's recommended policies do not place an unequitable financial responsibility on municipalities to bear the costs required to meet the objectives. Any requirement for municipalities to assist with the implementation of the new plan through activities such as public education, media campaigns, enforcement or monitoring, must be financially supported by the Government of Canada.

4.2 COVID-19 Considerations - In order to manage single-use plastics at a time when consumer and market demand for these products is high, there needs to be a public health lens applied. Many food establishments have refused to use reusable items in fear of putting their staff and customers at risk of contracting COVID-19. As the Government of Canada communicates how the virus is transmitted between people, it should also expel myths of the dangers related to reusable items if recommended sanitary guidelines are followed.[8]

4.3 Public Health Considerations - The World Health Organization has already identified public health as a gap in circular economy strategies that it has reviewed, and there is an opportunity for the Government of Canada to lead by example by ensuring that public health is central to its approach in building a circular plastics economy.[9]

[8] *Health Expert Statement Addressing Safety of Reusables and COVID-19*, Greenpeace. Link: https://www.greenpeace.org/usa/wp-content/uploads/2020/06/Health-Expert-Statement_125-experts.pdf

[9] *Circular economy and health: opportunities and risks (2018),* World Health Organization. Link: https://www.euro.who.int/en/publications/abstracts/circular-economy-and-health-opportunities-and-risks-2018

5. Alternative Technologies for Managing Waste

The Government of Canada should provide funding and other incentives to advance scientific research for plastics recovery technologies. The funding could be used to better understand the efficacy and environmental, social and financial performance/impacts of chemical recycling and thermal processing of plastics for energy recovery, chemical recovery, or creation of fuel products. This could help support support the recovery objectives of a circular economy and maximize the value of residual material following waste prevention, reduction, reuse, and mechanical recycling efforts.

In instances where reduction, reuse and recycling are not possible, the Government of Canada should investigate alternative technologies in partnership with the provinces and territories, municipalities, and private waste industry. It could mean transformational change to waste management facilities in Canada, but it also requires robust assessment – particularly on impacts to human health, environmental health, and climate change.

Furthermore, and as articulated in Appendix B, s. 4.1, it is critical that the financial burden on municipalities be acknowledged and addressed in the study and implementation of alternative technologies. Chemical recycling and some advanced thermal processes require homogenous feedstocks with low contamination. This would require robust source separation and/or additional sorting infrastructure to implement effectively, both of which have implications for municipal governments and their constituents. Similarly, many options are emerging technologies without a proven track record of successful implementation in Canada, or established end markets for their products. This creates additional financial risks for municipalities implementing these technologies in their waste management systems. Further study and investment are required to pursue advanced recovery technologies in a manner that is financially, environmentally, and socially responsible and meets the recovery objectives of a Canadian circular plastics economy.

Finally, any pursuit of thermal processing or chemical recycling must be implemented through a circular economy framework that prioritizes eliminating and reducing waste and reusing products above all else. Advanced recovery technologies should not be implemented as a substitute to transformative, “upstream” changes in packaging, design, consumption behaviour, and producer responsibility that will be necessary to transition Canada to a circular economy.