HUSKY
Keeping our customers in the lead

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Re: Husky Injection Molding Systems Ltd. Comments on the Order Adding a Toxic Substance to Schedule 1 to the *Canadian Environmental Protection Act, 1999*, as published in the *Canada Gazette*, Part I, Volume 154, Number 41 on October 10, 2020 and the Proposed integrated Management Approach to plastic products to prevent waste and pollution

Dear Ms. Séguin and Ms. Raper,

1. Introduction and Executive Summary

Thank you for the opportunity to comment on the proposed Order Adding a Toxic Substance to Schedule 1 to the *Canadian Environmental Protection Act, 1999*[1] ("**CEPA**") as published in the *Canada Gazette*, Part I, Volume 154, Number 41 on October 10, 2020 (the "**Proposed Order**") and the Discussion Paper entitled "A proposed integrated management approach to plastic products to prevent waste and pollution" (the "**Discussion Paper**").[2]

Given the necessary link between the Proposed Order and Discussion Paper, Husky Injection Molding Systems Ltd. ("**Husky**") has combined its comments on both documents herein so as to provide comprehensive feedback for Environment and Climate Change Canada's ("**ECCC**") consideration.

As outlined below, Husky shares the Federal Government's goals of reducing the amount of plastic waste that escapes managed waste streams to become plastic pollution. Husky is a

[1] SC 1999, c 33, online: https://laws.justice.gc.ca/eng/acts/C-15.31/.
[2] ECCC, "A proposed integrated management approach to plastic products: discussion paper" (October 2020), online: https://www.canada.ca/content/dam/eccc/documents/pdf/cepa/proposed-approach-plastic-management-eng.pdf.

supporter of the Canadian Council of Ministers of the Environment's ("**CCME**") approach and the implementation of the Zero Plastic Waste Strategy. We agree that reducing and preventing plastic pollution is a significant global priority that requires concerted action involving governments, industry, and non-governmental organizations. Our organization is committed to driving recycling, keeping plastics in the value stream and out of landfills and the environment.

As part of Husky's global commitment to the environment and to enabling our customers to meet their sustainability goals, Husky is a signatory to the New Plastics Economy Global Commitment led by the Ellen MacArthur Foundation. The Global Commitment brings together businesses, governments and other organizations around the world to tackle the issues of plastic in the environment and to build a world class circular economy for plastic right here in Canada.

While Husky shares the goal of addressing plastic pollution, we fundamentally disagree with the use of the CEPA to address a waste management problem. As described in more detail in our comments below, Husky raises the following concerns with the proposed Order:

1. "Plastic manufactured items" are not a toxic substance under the CEPA and therefore cannot be added to the List of Toxic Substances;
2. The Ministers have no reasonable basis for recommending the Proposed Order.
3. Labelling all "plastic manufactured items" as toxic has many negative unintended consequences, for Canadians and the environment that the Federal Government has not considered in their impact assessments.
4. The regulation of plastic pollution, plastic products and the management of plastic waste trenches on provincial jurisdiction.
5. The Regulatory Impact Analysis Statement[3] fails to consider the unintended consequences of the Order.
6. The Order may be inconsistent with Canada's obligations under the World Trade Organization's ("**WTO**") Technical Barriers to Trade Agreement ("**TBT Agreement**") and the Canada-United States-Mexico Agreement ("**CUSMA**").
7. Global examples show that plastic pollution is a solvable problem without labelling plastic items as toxic.

Husky also submits that policy actions regarding plastics must be based on science and appropriate research. While the Federal Government has relied heavily on the Science Assessment of Plastic Pollution ("**Science Assessment**") as the basis for the Order and the regulatory measures proposed in the Discussion Paper, Husky has serious concerns regarding the conclusions drawn therein.[4] Specifically,

1. The Science Assessment does not determine whether microplastics, macroplastics, or plastic manufactured items are toxic.
2. The Science Assessment does not in fact support a finding that "plastic manufactured items" – or any plastic – are toxic under the CEPA.
3. The Precautionary Principle is invoked without basis.

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[3] Regulatory Impact Analysis Statement, as published alongside the Proposed Order in the *Canada Gazette*, Part I, Volume 154, Number 41 on October 10, 2020**,** at "Issues", online: http://gazette.gc.ca/rp-pr/p1/2020/2020-10-10/html/reg1-eng.html ("**Regulatory Impact Analysis Statement**").

[4] ECCC, "Science assessment of plastic pollution" (October 2020), online: https://www.canada.ca/content/dam/eccc/documents/pdf/pded/plastic-pollution/Science-assessment-plastic-pollution.pdf.

4. Details of any peer review are unknown.
5. Canadian studies are limited in conclusions and scope.

Husky submits that the management approach set out in the Discussion Paper should be used as a collaborative tool for ongoing improvement to achieve the integrative, holistic and comprehensive approach required to address plastic pollution and plastic waste effectively. To that end, Husky has provided constructive feedback on the Discussion Paper, including:

1. The consultation process undertaken by the Federal Government has not permitted any meaningful feedback from stakeholders or demonstrated any consideration of the unintended negative consequences of the Federal Government's approach.
2. Husky recommends the Discussion Paper be used as a tool for continuous improvement to identify areas requiring additional attention and treatment to meet the Zero Plastic Waste goals of the provinces, Canada and the Oceans Charter.
3. Husky has provided recommendations that would permit the Discussion Paper to provide integrative, holistic and comprehensive approach required to address plastic pollution and plastic waste effectively (see **Appendix "A"**).
4. As currently written, the Discussion Paper stands to interfere with existing efforts at collaboration that have taken place within Canada and worldwide. For the Discussion Paper to be useful in providing guidance to achieve improved performance in environmental, economic and social sustainability, the Federal Government should work in collaboration with the CCME, industry and other stakeholders to ensure key factors are addressed and included in the approach.
5. Plastic waste is a resource conservation issue. The Discussion Paper ignores innovation and technology in the reduction, reuse, recycling and recovery of plastic products that would permit Canada to be a world leader in the area.
6. The Discussion Paper should incorporate the complimentary approaches of the Circular Economy and Sustainable Material Management, which examine efficiency over the whole lifecycle of a product.

2. About Husky

Husky is a Canadian company and is the world's largest brand name and leading supplier of manufacturing solutions, including tooling, systems and services. Husky employs over 1,200 team members at our headquarters in Bolton, Ontario.

We design, manufacture and integrate the industry's most comprehensive range of injection molding equipment, including machines, molds, hot runners, auxiliaries and integrated systems. Our value-added services include preform development, factory planning, customer training, systems integration and complete asset management.

With one of the broadest product lines in the industry, our equipment is used to produce a wide range of products for the beverage packaging, closures, thin wall packaging, medical, and consumer electronics markets. Husky employs approximately 4,200 people worldwide, including approximately 600 service representatives across 40 service and sales offices globally. Husky supports customers in over 140 countries, and our main manufacturing facilities are located in Canada, United States, Luxembourg, Switzerland, China, India and Czech Republic.

3. Canada's Plastics Economy

The plastics value chain employs thousands of Canadians across the country. That employment is significant: according to Deloitte's Economic Study of the Canadian Plastic Industry, Markets and Waste (2019)[5] commissioned by ECCC ("Deloitte Study"), national direct employment is 93,000 Canadians in the plastics sector while indirect employment is estimated to be an additional 279,000 people. A third of employment in the entire plastic sector is in packaging with that employment concentrated in Ontario, Quebec and Alberta.

Unfortunately, Husky is aware that a chilling effect on new investment in Canada has already occurred following the Prime Minister's announcement in June 2019 of the Government of Canada's intention to ban single use plastics. The unnecessary stigmatizing of "plastic manufactured items" as a toxic substance in Canada (a step not taken elsewhere in the industrialized world) will materially impact the future of what is currently a robust domestic industry. Future investments are at risk of being directed to jurisdictions that are prepared to work with industry on solutions rather than make designations under inappropriate legislation that stigmatizes their products and their industries.

There is broad agreement in society that the elimination of plastics litter, mismanaged waste released to the environment and keeping the valuable benefits of plastics resources available to Canadians is a priority. However, as acknowledged in the Regulatory Impact Analysis Statement and ECCC's Science Assessment of Plastic Pollution, only a very small percentage of Canada's plastic waste escapes managed waste streams and ends up as plastic pollution. Plastic pollution makes up only 1% of the total plastic waste generated in Canada. The remaining 99% of plastic waste is handled appropriately through recycling, landfills, or incineration - much of which is regulated at a provincial level.

While there is always room for improvement, Canada is managing plastic wastes well in comparison to other jurisdictions. To put Canada's performance in perspective in global terms, a 2015 study ranked Canada #187 out #192 countries worldwide based on its estimated annual mass of mismanaged plastic waste.[6] China was the number one contributor of ocean plastics.[7]

Husky supports continuous improvement and recognizes Canada can always do better. Through the CCME Zero Plastic Waste Strategy, Husky supports Canada's intention to reach the Oceans Charter goal of zero plastic waste. We must continuously improve to address the less than 1% of all plastics in the economy released through unmanaged landfills and litter caused by errant human behaviour across all sectors – construction, medical, transportation, packaging, textiles, electronics and other uses.

Instead of using outdated and harmful legislation that is not designed for these issues, the Federal Government should continue to work collaboratively with the provinces, industry and other

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[5] Deloitte and Cheminfo Services Inc. "Economic Study of the Canadian Plastic Industry, Markets and Waste - Summary Report to Environment and Climate Change Canada" (2019) online: http://publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf.

[6] CIAC, "The Role of Chemistry In A Circular Economy For Plastics" online: https://canadianchemistry.ca/wp-content/uploads/2019/02/CIAC_circular_economy_for_plastics.pdf.

[7] Jenna R. Jambeck et al, "Plastic waste inputs from land into the ocean" Science Magazine, Vol 347 Issue 6223 (February 13, 2015) online: https://www.iswa.org/fileadmin/user_upload/Calendar_2011_03_AMERICANA/Science-2015-Jambeck-768-71__2_.pdf.

stakeholders to manage plastics and by its own very words keep plastics value in the economy. Plastics play an essential role in our healthy living style and more recently the benefits of single use plastics ("**SUP**") in the fight to prevent the spread of COVID-19. Additionally, plastics will play an integral role in the delivery of the vaccine, providing a safe and hygienic delivery device as just one example.

4. Husky's Comments on the Proposed Order

Husky is strongly opposed to the Proposed Order, which would result in the addition of "plastic manufactured items" to the List of Toxic Substances at Schedule 1 of the CEPA.

Respectfully, the management of plastic manufactured items using the toxic substances provisions of the CEPA and the List of Toxic Substances is not appropriate, nor is it supported by ECCC's own Science Assessment. To the contrary, using legislation that is intended to regulate substances that are obviously toxic in the ordinary sense to address a waste management issue will cause permanent and irreparable harm to the Canadian economy and environment.

(a) "Plastic manufactured items" are not a toxic substance under the CEPA and cannot be added to the List of Toxic Substances

Put simply, "plastic manufactured items" do not meet the criteria of a "toxic substance" set out at section 64 of the CEPA. They are therefore ineligible for addition to the List of Toxic Substances at Schedule 1 of the CEPA.

To be considered a "toxic substance" under the CEPA, a substance must be entering (or may enter) the environment in a quantity or concentration or under conditions that cause or may cause one or more of the following harms:

> (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity;
> (b) constitute or may constitute a danger to the environment on which life depends; or
> (c) constitute or may constitute a danger in Canada to human life or health.[8]
> [emphasis added]

The Science Assessment does not engage in any analysis of whether microplastics, macroplastics, or "plastic manufactured items" would meet the criteria of a "toxic substance" under section 64 of the CEPA. As a result, the Science Assessment does not reach any conclusion regarding the toxicity of "plastic manufactured items" under the CEPA.

Nor do the studies surveyed by the Science Assessment support the conclusion that microplastics, macroplastics, or plastic manufactured items are CEPA-toxic. As Husky addresses in detail in the discussion of the Science Assessment contained below, the conclusions of the studies reviewed fall short of meeting the criteria for toxicity. The findings of harm and potential harm identified therein are related only to individual receptors, and in any case, the connection between the quantity, concentration or conditions entering the environment to the potential harms caused are not made out. Furthermore, the Science Assessment does not connect the

[8] CEPA at sections 64.

individual impacts identified in specific studies and the exposure levels at which a substance becomes CEPA-toxic.

(b) The Ministers have no reasonable basis for recommending the Proposed Order

Respectfully, the clear lack of scientific rigour that underpins the Proposed Order means that it cannot reasonably be grounded in the statutory context of the CEPA.

The CEPA sets out several rigorous, science-based pathways by which the toxicity of a substance may be assessed, including through a screening assessment (section 74), a review of a decision of another jurisdiction (section 75), or the assessment of a substance on the Priority Substance List (section 76).

The Ministers of Health and the Environment may also make a recommendation to the Governor in Council that a substance be added to the List of Toxic Substances pursuant to section 90(1), as currently is contemplated by the Proposed Order. While the CEPA does not set out a legislative process for this recommendation, ECCC itself notes that under section 90(1) of the CEPA:

> A substance is "CEPA-toxic equivalent" if it satisfies the definition of "CEPA-toxic" as a result of a systematic, risk-based assessment. Such assessments can include determinations made under other federal statutes, or can incorporate appropriate elements of assessments done by or for provinces or territories, international organizations or other appropriate scientific authorities such as [the] Stockholm Convention [and the] Montreal Protocol.[9]
>
> [emphasis added]

Even where such an assessment was not conducted, a science-based determination of toxicity has historically been made before a substance was recommended for addition to the List of Toxic Substances. For example, the Science Summary of Microbeads explicitly considered whether microbeads met the definition of a "toxic substance" at section 64 of CEPA, and then reached a conclusion on the substance's toxicity based on the science reviewed in that summary.[10]

In the case of the Proposed Order, however, none of the science-based risk assessments required by the CEPA, or the evaluations of toxicity that would otherwise underpin the exercise of the federal government's powers, are present.

[9] ECCC, "Risk assessments under section 90(1) of Canadian Environmental Protection Act, 1999" (date modified: 2019-05-23) online: https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/substances-list/risk-assessments-section-90-1.html.
[10] See https://www.canada.ca/en/health-canada/services/chemical-substances/other-chemical-substances-interest/microbeads.html.

The Science Assessment explicitly states that it "is not intended as a substitute for chemical risk assessment", and goes on to note that "typically, a chemical risk assessment is conducted to assess the potential for risk to the environment and human health associated with a substance."[11] However, such an assessment is not possible in this case:

> …significant data gaps currently exist that preclude the ability to conduct a quantitative risk assessment, including a lack of standardized methods for monitoring microplastics and characterizing the environmental and human health effects of plastic pollution, as well as inconsistencies in the reporting of occurrence and effects data in the scientific literature[12]
>
> [emphasis added]

Further, the Science Assessment does not reach a conclusion as to whether microplastics, macroplastics, or plastic manufactured items are toxic substances under the CEPA. This is a departure from the Science Summary on Microbeads, which did reach a conclusion on the toxicity of microbeads. In contrast, the Ministers lack such a determination to provide the basis for the Proposed Order.

Husky also takes issue with the Science Assessment's conclusion that the precautionary principle demands action on plastic pollution by the Federal Government. CEPA defines the precautionary principle as "where there are threats of serious or irreversible damage, a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."[13]

In the current circumstances, the condition precedent required to trigger the precautionary principle is missing. No "threat of serious or irreversible damage" is identified: the word "irreversible" does not appear in the Science Assessment, and no conclusion as to the seriousness of any damage noted in the studies reviewed is made. The Regulatory Impact Statement equally fails to demonstrate what threat of serious or irreversible damage has been identified by the Ministers.

Despite this, the Regulatory Impact Analysis Statement suggests that it is the precautionary principle, when combined with the contents of the Science Assessment, that warrant the Proposed Order:

> Additionally, the Department maintains that the science assessment of plastic pollution provides the ministers with the evidence to recommend the addition of “plastic manufactured items” to Schedule 1 to CEPA in accordance with the precautionary principle, which would be consistent with the recommendation from the science assessment to take action to address plastic pollution.[14]

[11] Science Assessment at section 1.1, page 14.
[12] Science Assessment at section 1.1, page 14.
[13] CEPA at Preamble and at section 2(1)(a).
[14] Regulatory Impact Analysis Statement at "Consultation".

There is simply no reasonable basis for issuing the Proposed Order where, as in this case, there is no foundation for defaulting to the precautionary principle and the Science Assessment fails to support a conclusion that "plastic manufactured items" are CEPA-toxic.

(c) The regulation of plastic pollution trenches on provincial jurisdiction

The addition of "plastic manufactured items" to the List of Toxic Substances for the purposes of controlling plastic pollution or plastic waste overreaches Parliament's powers to regulate truly toxic substances. Neither the term "plastic manufactured items" nor the process undertaken to add the term to Schedule 1 demonstrate the specificity and careful assessment that the Supreme Court of Canada has determined is required to validly exercise the federal government's criminal law powers.

In *R v Hydro-Québec*, [1997] 3 SCR 213 ("***Hydro-Québec***"), the Supreme Court of Canada held that the CEPA's toxic substances provisions were valid criminal legislation within the federal head of power, but that p they represented a "limited prohibition applicable to a restricted number of substances", as "enforced by a penal sanction and undergirded by a valid criminal objective".[15] The Court went on to note the following regarding the purpose of the statute:

> This, in my mind, is consistent with the terms of the statute, its purpose, and indeed common sense. It is precisely what one would expect of an environmental statute -- a procedure to weed out from the vast number of substances potentially harmful to the environment or human life those only that pose significant risks of that type of harm. Specific targeting of toxic substances based on individual assessment avoids resort to unnecessarily broad prohibitions and their impact on the exercise of provincial powers.[16]
>
> [emphasis added]

If the Federal Government wished to comply with the legislative purpose of the CEPA in relation to a type of plastic polymer or a specific plastic manufactured item, it would undertake an assessment of the individual polymer or plastic manufactured item that posed the most significant risk of harm. The results of such an individual assessment, where it finds a significant risk of harm, could be used to support the addition of those individual substances or items to Schedule 1.

Instead, the Regulatory Impact Analysis Statement shows no intention of exerting the required level of specificity in the Proposed Order. The Regulatory Impact Analysis Statement itself is clear that its purpose is "to address the potential ecological risks associated with certain plastic manufactured items becoming plastic pollution."[17] In other words, ECCC itself recognizes that not all items that fall within the enormous category of "plastic manufactured items" pose the significant risk that warrants those items being designated as toxic. The Proposed Order is therefore unnecessarily broad and is likely outside of Parliament's powers.

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[15] *Hydro-Quebec* at para 146.
[16] *Hydro-Québec* at para 147.
[17] Regulatory Impact Analysis Statement at "Issues".

Further, despite the recognition that plastic pollution arises from the "leaks" in managed waste management systems (*e.g.* through littering),[18] no effort has been made at identifying, assessing, and narrowing down what about a "plastic manufactured item" in Canada could in fact contribute to plastic pollution. Moreover, as noted above, there is no evidence that plastic manufactured items are being released into the environment in Canada under conditions contemplated under the toxic substance provisions of CEPA.

A further consequence of being overly unspecific is that the addition of "plastic manufactured items" would result in trenching on the province's jurisdiction over the production of plastic manufactured items and the management of plastic waste.

The Supreme Court held that federal powers over toxic substances should be applied only where the substance is not otherwise regulated:

> There was no intention that the Act should bar the use, importation or manufacture of all chemical products, but rather that it should affect only those substances that are dangerous to the environment, and then only if they are not regulated by law.[19]

According to Canada's studies, 99% of plastic waste is disposed of within a managed waste stream. The Government of Canada states that "in Canada, collection, diversion (recycling and composting) and disposal operations are the responsibility of municipal governments, while the provinces and territories are responsible for the approval, licensing and monitoring of operations."[20]

However, it would be inaccurate to suggest that the estimated 1% of Canada's plastic waste that becomes plastic pollution by falling outside a managed waste stream (*i.e.*, "leakage") is not regulated by law. Laws regulating litter, illegal dumping, and releasing substances into the environment are enforced at both the municipal and provincial level. Provincial transportation laws may require the coverage of loads carried by trucks.

The regulation by the Federal Government of "plastic manufactured items" through the CEPA would likely infringe on the provinces' well-developed exercises of provincial jurisdiction related to the development of non-renewable resources, plastic manufacturing, and recycling, as well as the management of waste, as set out in subsections of section 92 and 92A of the *Constitution Act*.

(d) The Regulatory Impact Analysis Statement fails to consider the unintended consequences of the Order

The Regulatory Impact Analysis Statement entirely ignores the considerable costs associated with labelling and stigmatizing "plastic manufactured items" as toxic, despite the CEPA's recognition of the importance of integrating "environmental, economic and social factors in the making of all decisions by government" to achieve sustainable development.[21] While ECCC

[18] Regulatory Impact Analysis Statement at "Issues"; Discussion Paper at page 1; Science Assessment at page 12.
[19] *Hydro-Quebec* at para 138.
[20] Government of Canada, "Municipal solid waste and the environment" (modified August 9, 2017) online: https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/municipal-solid/environment.html.
[21] CEPA at Preamble and at section 2(1)(a).

suggests that "potential impacts to plastics-related industries and the broader Canadian economy would occur only in the event that the Ministers propose risk management measures for plastic manufactured items",[22] this ignores the cost of stigmatizing plastics by labelling them "toxic substances".

Even before any regulatory tools considered by the Discussion Paper are implemented, placing the nearly limitless category of "plastic manufactured items" on the List of Toxic Substances will have enormous harm to plastic producers by creating an immediate cooling effect on investment and innovation in the plastics industry in Canada. Such measures threaten to disrupt a robust plastics industry in Canada that currently serves to support critical domestic supply chains for many needed products. COVID-19 has demonstrated that the lack of manufacturing capacity in Canada to support critical supply chains can have detrimental impacts on the health, safety and security of Canadians.

The pandemic has shown us that Canada needs to have a strong independent supply chain and there is an exceptional opportunity for our country to emerge as a leader in delivering the solutions the global population so desperately needs. The proposed Order may make Canada more dependent on foreign nations for critical medical supplies and deter investment and innovation into green jobs. The Order may also impede the rapid response for medical devices and supplies required to protect Canadians in the fight against COVID-19.

The stigma of plastics being a "toxic substance" also stands to undermine public trust in plastic products at a time when plastics have never been more necessary for public health. Listing plastic manufactured items alongside other obviously toxic substances such as mercury, asbestos, and lead when plastic manufactured items are vital to the fight against COVID-19 is both misleading and reckless.

(e) The Order may be inconsistent with Canada's obligations pursuant to international trade agreements

With respect, the Regulatory Impact Analysis Statement's assertion that "the proposed Order would not directly relate to any domestic or international agreements or obligations" is mistaken.[23]

Canada committed under CUSMA Sectoral Annex 12.A.4.3 to endeavour to use a risk-based approach to assessing specific chemical substances. [24] The proposal to add “plastic manufactured items” to the List of Toxic Substances for the purpose of banning or otherwise regulating certain plastic items under the CEPA flies in the face of this obligation. To endeavour is to attempt to do something; to make an effort. Canada has made no effort to use a risk-based assessment in adding “plastic manufactured items” to the List of Toxic Substances. Adopting this approach would constitute a violation of Canada’s international obligations under the CUSMA and would undermine Canada’s commitment to enhancing regulatory compatibility under that Agreement.

[22] Regulatory Impact Analysis Statement at "Consultation".
[23] Regulatory Impact Analysis Statement at "Regulatory cooperation and alignment".
[24] CUSMA, "Chapter 12: Sectoral Annexes" at 12-A-4.3, online: https://www.international.gc.ca/trade-commerce/assets/pdfs/agreements-accords/cusma-aceum/cusma-12.pdf.

Adoption of the proposed approach would also be in contravention of Canada's obligations under the WTO TBT Agreement. [25] Article 2.2 of the TBT Agreement requires WTO Members – including Canada - to ensure that technical regulations are not adopted with the effect of creating unnecessary obstacles to international trade. In other words, technical regulations must not be more trade-restrictive than necessary to fulfil a legitimate objective, in this case protection of the environment. A technical regulation is considered to be more trade restrictive than necessary if a reasonably-available alternative measure that is less trade restrictive would make an equivalent contribution to achieving the objective in question (protection of the environment).

Husky suggests that the proposed Order should in fact be considered a "technical regulation" under the TBT Agreement, and that less trade restrictive measures are available, such as specific laws and regulations to address the real issue – waste management – which falls within the constitutional powers of the provinces.

Moreover, the proposed technical regulations, if adopted, will have a significant effect on the trade of other WTO Members. Therefore, Canada is required under Article 2.9 of the TBT Agreement to publish a notice at an early stage of its intention to introduce the regulation in order to enable Members to become acquainted with it. Canada must also notify Members through the WTO Secretariat of the products to be covered by the proposed regulation, together with an indication of the objective and rationale of the regulation. Such notification must take place at an early stage when amendments can still be made and comments taken into account. WTO Members must be provided with reasonable time to make comments in writing and discuss these comments.

None of this has occurred. As a result, adoption of the proposed technical regulations prior to this taking place would put Canada in breach of its WTO obligations.

5. Comments on Science Assessment

Husky appreciated the opportunity to provide comments on the Draft Science Assessment on April 30th, 2020.

However, the Final Science Assessment released October 7, 2020 contains many of the same issues flagged by Husky in early 2020. As evidenced in the summary of public comments, other stakeholders share these concerns.[26]

The plastics industry is a science, innovation and technology-driven sector. It is heavily involved in research and development and understands scientific processes and what constitutes valid science. Given the reliance placed on the Science Assessment to support the Ministers' recommendation of the Proposed Order and the emphasis given to its recommendations in the Discussion Paper, Husky wishes to flag the following shortcomings of the Science Assessment.

[25] World Trade Organization, "Agreement on Technical Barriers to Trade", online: https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm.

[26] ECCC, "Summary of public comments received regarding the draft science assessment of plastic pollution" (October 7, 2020) online: https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/summary-public-comments-received-regarding-draft-science-assessment-plastic-pollution.html.

(a) The Science Assessment does not determine whether microplastics, macroplastics, or plastic manufactured items are toxic.

For the purposes of the CEPA, a substance is "toxic" where it meets the definition of section 64, which states that a substance is toxic if it is entering or may enter the environment in a quantity or concentration or under conditions that (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity; (b) constitute or may constitute a danger to the environment on which life depends; or (c) constitute or may constitute a danger in Canada to human life or health.

The Science Assessment does not assess its findings against these criteria. **As a result, no determination of whether microplastics and macroplastics (and, by extension, "plastic manufactured items") are in fact "toxic substances" under the CEPA is made by the Science Assessment.**

According to the authors, "the purpose of this report is to summarize the current state of the science regarding the potential impacts of plastic pollution on the environment and human health."[27] The Science Assessment is clear that it is not intended as a substitute for a chemical risk assessment of plastics,[28] noting that:

> …significant data gaps currently exist that preclude the ability to conduct a quantitative risk assessment, including a lack of standardized methods for monitoring microplastics and characterizing the environmental and human health effects of plastic pollution, as well as inconsistencies in the reporting of occurrence and effects data in the scientific literature.[29]

Despite the suggestion in the Regulatory Impact Analysis Statement that "the science assessment followed a similar approach to that taken for the science summary on microbeads",[30] this overlooks a key difference between the two reports. While the science summary on microbeads reached a clear conclusion regarding the toxicity of microbeads pursuant to section 64 of the CEPA,[31] the Science Assessment is silent on the toxicity of "plastic manufactured items".

In other words, the science-based recommendation relied on to add "microbeads" to the list of Toxic Substances in 2015 is notably absent from the Proposed Order in relation to "plastic manufactured items".

(b) The Science Assessment does not in fact support a finding that "plastic manufactured items" – or any plastic – are toxic under the CEPA.

Notwithstanding the lack of conclusion regarding toxicity, a review of the Science Assessment's conclusions demonstrate that the definition of "toxic substance" under the CEPA is not met. To be a toxic substance under the CEPA, a substance must present a risk of harm (as listed at

[27] Science Assessment at page 8.
[28] Science Assessment at page 14.
[29] Science Assessment at page 14.
[30] At Footnote 3, online: http://gazette.gc.ca/rp-pr/p1/2020/2020-10-10/html/reg1-eng.html.
[31] ECCC, "Microbeads – A Science Summary" at section 7, "Recommendations" (July 2015) online: https://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=ADDA4C5F-1.

subsections 64(a), (b), or (c)) and that risk of harm must be connected to the quantity, concentration, or conditions under which it is entering the environment.

The Science Assessment simply does not demonstrate that microplastics or macroplastics meet the definition of *CEPA*-toxic.

The Science Assessment rules out the possible application of subsections 64(a) and (b) to microplastics, noting that "evidence for potential effects of microplastic pollution on environmental receptors is less clear and sometimes contradictory, and further research is required."[32]

Likewise, in relation to subsection 64(c), the Science Assessment's concludes that neither microplastics nor macroplastics potentially constitute a danger in Canada to human life or health.[33]

As a result, the only possible determination of toxicity could be made pursuant to subsection 64(a) or (b) in relation to macroplastics. Such a determination would require evidence that macroplastics are entering (or may enter) the environment in a quantity or concentration or under conditions that have or may have an immediate or long-term effect and constituting a danger to the environment on which life depends.

Evidence to support a conclusion that macroplastics are *CEPA*-toxic is not present in the Science Assessment. While it concludes that "macroplastics have been demonstrated to cause physical harm to environmental receptors on an individual level and to have the potential to adversely affect habitat integrity"[34], the Science Assessment falls short of determining that harm to individual receptors in and of itself constitutes an immediate or long-term effect, or a danger to the environment on which life depends that is necessary to engage section 64(a). Nor does the Science Assessment suggest that either (i) the harm in question or (ii) the potential adverse effect on habitat integrity would constitute or may constitute a danger to the environment on which life depends so as to engage section 64(b).

Even if these harms were judged sufficient to warrant a finding of harm under subsections 64(a) or (b), the vital link between harm and exposure (*i.e.*, "the quantity, concentration or conditions under which the substance is entering, or may enter, the environment") is not made out. The Science Assessment explicitly acknowledges that for macroplastics, due to "the absence of standardized methods and techniques", "it is not possible to quantitatively characterize environmental or human exposure levels at this time".[35]

In conclusion, a careful review of the Science Assessment's findings demonstrates why a conclusion on toxicity is not made: the science reviewed simply does not support a finding that microplastics or macroplastics can, in fact, meet the definition of a "toxic substance" pursuant to section 64 of the *CEPA*.

[32] Science Assessment at page 82.
[33] Science Assessment at sections 7.1 and 10.
[34] Science Assessment at pages 10 and 82.
[35] Science Assessment at page 32.

(c) The Precautionary Principle is applied without basis

As noted in the Discussion Paper, the Science Assessment advocates using the precautionary principle to take action to reduce plastic in the environment.

However, the precautionary principle as defined in the *CEPA* is to be applied "where there are threats of serious or irreversible damage".[36] No such conclusion is reached by the Science Assessment: the word "irreversible" does not appear in the Science Assessment, and no conclusion as to the seriousness of any damage noted in the studies reviewed is made.[37] Nor, as noted above, does the evidence contained therein support that such a threshold is being reached.

Based on the foregoing, the necessary threshold to trigger the precautionary principle is absent and its use is inappropriate.

(d) Details of any peer review are unknown

The authorship of the Science Assessment is unknown. Further, the peer reviewers of this report are unknown. This is not standard scientific protocol, not transparent and makes reasoned dialogue about the Science Assessment impossible in practice.

(e) Canadian studies are limited in conclusions and scope

The scope of the actual plastics problem in Canada is not adequately assessed. No effort is made to quantify the amount of plastic in the environment in Canada and therefore the extent of or magnitude of the problem.

To the contrary, the Science Assessment appears to dismiss the fact that many plastics have been found to be inert and not inherently toxic by Canadian authorities and in response to rigorous scientific testing. The Science Assessment glosses over Canadian research concerning the toxicity of plastics, noting that "many of the chemicals observed to be bound to plastic particles have been assessed by various programs at Environment and Climate Change Canada (ECCC) and Health Canada".[38] This fails to acknowledge that over 2,275 plastic polymers have been approved by Health Canada Safety Branch and the US Health Safety Branch.[39]

For example, ECCC and its predecessors have analyzed styrene, a building block of polystyrene, not once but twice to determine whether it is a "toxic substance" pursuant to the *CEPA* definitions. It was determined to not be toxic on both occasions.[40] Styrene is actually a naturally occurring element and is found in commonly consumed foods such as strawberries, peaches, cinnamon, beef and coffee. These studies were not included in the Science Assessment.

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[36] CEPA at section 2(1)(a).
[37] Science Assessment.
[38] Science Assessment at page 11.
[39] Health Canada Lists of Acceptable Polymers for use in Food Packaging Applications.
[40] ECCC, "Priority Substances List 1 Assessment Report - Styrene" (1993) online: http://www.hc-sc.gc.ca/ewh-semt/pubs/contaminants/psl1-lsp1/stryene/index-eng.php and ECCC, Follow-up Report on a PSL1 Substance for Which There Was Insufficient Information to Conclude Whether the Substance Constitutes a Danger to the Environment" (May 2003) online: https://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=35DA297C-1.

6. Husky's Comments on the Discussion Paper

(a) General Comments

Husky has provided detailed, issue-by-issue comments on the Discussion Paper and its questions for discussion in the enclosed Appendix "A".

Our key comments and recommendations regarding the Discussion Paper and Federal Government's proposed policy approach under CEPA are the following:

1. The consultation process undertaken by the Federal Government has not permitted any meaningful feedback from stakeholders or demonstrated any consideration of the unintended negative consequences of the Federal Government's approach.
2. Husky recommends the Discussion Paper be used as a tool for continuous improvement to identify areas requiring additional attention and treatment to meet the Zero Plastic Waste goals of the provinces, Canada and the Oceans Charter.
3. As set out in detail in Appendix "A", the Discussion Paper requires extensive revisions before it can provide the integrative, holistic and comprehensive approach required to address plastic pollution effectively. For the Discussion Paper to be useful in providing guidance to achieve improved performance in environmental, economic and social sustainability, the Federal Government should work in collaboration with the CCME, industry and other stakeholders to ensure key factors are addressed and included in the approach. As currently written, the Discussion Paper stands to interfere with existing efforts at collaboration.
4. Plastic waste is a resource conservation issue. The Discussion Paper ignores innovation and technology in the reduction, reuse, recycling and recovery of plastic products that would permit Canada to be a world leader in the area. Harnessing this innovation would permit Canada to capture the $7.8 Billion in otherwise lost opportunities identified in the Deloitte Study by transforming used plastic resources into new feedstocks for manufacturing, new products and energy.[41] In Husky's estimation, the benefits from this approach would actually exceed $7.8 Billion since plastics throughout its lifecycle conserves resources and energy that the alternatives do not.
5. The Discussion Paper should incorporate the complimentary approaches of the Circular Economy and Sustainable Material Management, which examine efficiency over the whole lifecycle of a product.

In short, the Discussion Paper falls far short of providing an integrated and holistic approach to protecting the environment from plastic pollution. The measures it proposes fail to support building back a better economy after COVID-19. Husky suggests that the discussion of banning single use plastics before taking meaningful steps to support innovative solutions that would improve recovery shows a narrow approach to the problem.

The Federal Government's approach also fails to assess the viability and unintended impacts of those alternatives, and the impact of the very instruments the government proposes to use to manage plastics and waste. The economic and environmental costs, jobs lost and gained,

[41] Deloitte Study at page 3.

investment and disinvestment in local and provincial economies by province are absent from the Discussion Paper.

(b) Suggested Revisions to the Discussion Paper

The management approach set out in the Discussion Paper is a direct result of the Federal Government's narrow focus on the use of the CEPA to manage plastics by adding "plastic manufactured items" to the List of Toxic Substances at Schedule 1 of the CEPA. As detailed below, the Science Assessment does not support or provide evidence on toxicity. The mismanaged plastics issue is a less than 1% waste management challenge that should be addressed through more appropriate instruments such as Extended Producer Responsibility and the CCME Zero Plastic Waste Strategy implemented at the provincial level to meet local economic, environmental and social needs.

Given the foregoing, Husky believes the government should withdraw its CEPA-based approach to managing plastics, based on the overwhelming evidence that plastics are not toxic.

Separately, however, Husky believes that the management approach proposed in the Discussion Paper has value if it is improved to make it truly integrated and holistic. Providing a tool by which to assess all products and materials would enable continuous improvement and help the industry to meet economic, environmental and social sustainability goals.

Elements of the ECCC Discussion Paper, like Life Cycle Assessment Tools ("**LCA**"), should be utilized to provide guidance and direction on “additional waste management needs” to improve environmental goals and objectives and not used to implement policy decisions such as bans. If the Discussion Paper is to provide a value-added guidance tool, Husky recommends that the following measures be integrated.

Take an Integrated & Holistic approach: The current approach needs to be more integrated and holistic to assess plastics and all alternatives to truly drive continuous improvement in environmental outcomes. Currently the approach is narrowly focused on plastics with no assessment of alternatives which may or may not provide improved environmental performance with regards to carbon footprint, energy use, greenhouse gas potential, water and air emissions and other key criteria.

Redefine the Categorization Criteria of Environmental & Value Recovery Problematic: The Discussion Paper only examines the “plastic manufactured items” through the narrow lens of Circular Economy ("**CE**"), which does not address full lifecycle impacts and other critical factors that a complimentary approach such as Sustainable Material Management ("**SMM**") would provide.

Data, considerations and tools that should be included in the ECCC Discussion Paper to inform good guidance and policy direction are:

- **Source Reduction**: SMM would inform material efficiency over reuse versus CE re-use over efficiency. SMM would look at the entire life cycle of the material and product application and highlight the best overall option for the environment without focusing solely on re-use and end of life. This approach balances each material's tradeoffs in order

to identify best ways to reduce overall material and resource demand. Through its narrow use of CE principles, the Discussion Paper prefers material reuse over efficiency leading to increased negative environmental and economic outcomes.

- **Quality:** SMM would examine the need for virgin material as needed and degradation of quality to ascertain best value. CE focus does not address quality by only seeking to avoid feeding virgin material back into the system.

- **End Markets:** SMM evaluates flow of materials between processes and across geographies and includes evaluation of disruptions to, or lack of, end markets. CE Infers local and assumes markets will grow with demand.

- **Life Cycle Assessment Data & Tools:** The omission of LCA tools and data is a critical oversight by the Discussion Paper. The alternatives examined by ECCC have not been assessed in terms of the full lifecycle impacts and the negative unintended impacts of bans have not been identified in the Discussion Paper.

- **Economic Costs:** The management approach must include an economic assessment across the full life cycle of products (e.g. cost to consumer to end-of-life management). This will inform stakeholders on improvements required to develop more sustainable systems to address the cost of living consumers face every day and to ensure Canadian businesses are competitive. The cost of alternatives can be 2 – 4 times more expensive than the plastic packaging they are replacing. Those costs include environmental and social costs (Trucost Plastics Study).

- **Include Priorities Such as Public Health & Food Safety:** The management approach takes an unacceptably narrow approach to assessing the value of products and materials in its value recovery definition using a strict adherence to CE. To have value to society, the management approach must be improved by addressing critical public health and food safety issues that have been brought into focus by the pandemic.

  Over the past number of years, public health has increasingly taken a back seat to the environment, reduction, reuse and recycling. Ignored in this discussion have been health risks posed by reusables. If not properly cleaned between uses, reuse can pose serious health risks. Major unions, Canadian retailers, and even governments have moved to suspend bans on single-use items and restrict the use of reusables during the Covid-19 crisis. This is because there is considerable research that has been done over the last 10 years that shows reusables being less sanitary than single-use items. For instance, reusable bags have already been implicated in bacterial and norovirus infection of consumers (International Outbreak Museum) and a recent survey in Canada found over 55% of consumers never wash their reusable bags.

  Food safety is critical to our healthy lives. Food packaging materials were developed, engineered and designed to prevent the spread of disease, protect our food supply, extend shelf life, minimize food waste, prevent tampering, and keep the cost of food affordable while providing what is typically the best alternative for the environment and economy.

- **Discussion Paper Needs to Be Dynamic:** The management approach set out in the Discussion Paper is currently static and does not recognize or address the fast changing,

innovative and dynamic marketplace with new products and packaging that bring new benefits to the economy and environment.

The value recovery recycling threshold set at 22% and identification of current barriers to recycling that may exist, are in themselves a barrier to innovation and establishing a circular economy for materials ECCC categorizes as value problematic.

Keeping plastics (and other materials) in the economy will require multiple options that involve reduction, reuse, recycling and recovery, advanced technologies and innovations in a fully integrated resource recovery system. The use of the complimentary approaches of CE and SMM would lead to positive overall environmental and economic performance.

The management approach should include an assessment of a material's current and future potential for value recovery across all recovery options. The recycling landscape is constantly changing, with new innovations being brought forward every day. The approach for example, recommends banning foam products as being environmentally and value recovery problematic. The Discussion Paper does not recognize that polystyrene foam is now being processed commercially in new advanced depolymerization technologies. This infrastructure is expanding and will create for Polystyrene Foam a perfectly circular economy with expanded markets across all sectors of the economy.

If the current definition of value recovery was applied in the early 1990's, PET would have been classed value recovery problematic. However, this has changed with the plastic industry and recyclers developing and investing in new sorting technologies that make PET products one of the most highly recycled and valued resins.

The management approach should always encourage, and not discourage, innovation.

7. Alternatives for Consideration

Husky is concerned that the use of the CEPA and the approach set out in the Discussion Paper appear to ignore the constructive and collaborative work that is ongoing in Canada and globally to address the issue of plastic pollution.

Husky is confident that alternative approaches to plastic waste management are readily available to assist the Federal Government to meet its policy goals. In addition to the concepts of the complimentary approach of SMM outlined in relation to the Discussion Paper, a few of these options are set out below.

(a) CCME Zero Plastic Waste Strategy

Husky supports the important work of the CCME, including the Strategy on Zero Plastic Waste,[42] as it uses science and data to avoid the negative unintended environmental, economic and social consequences of banning individual product types. We note that CCME's strategy was developed collaboratively with all levels of government, industry and other stakeholders to

[42] Canadian Council of Ministers of the Environment, "Strategy on Zero Plastic Waste" (2018) online: https://www.ccme.ca/files/Resources/waste/plastics/STRATEGY%20ON%20ZERO%20PLASTIC%20WASTE.pdf.

eliminate plastic waste, and as a result has the the support of all levels of governments, industry and stakeholders.

(b) Provincial Action on Waste Management and Recovery

Canada is recognized for its advanced waste management and recovery systems (such as the United Nations' recognition of Ontario's early actions with Blue Box recycling)[43] to manage plastic and other waste resources.

A made-in-Ottawa, CEPA-based approach that is one-size-fits-all simply cannot be sensitive to local needs on many levels. Provincial approaches to waste management is implemented through the provinces in accordance with their powers under the *Constitution Act, 1867* over waste management and resources. Industry partners are actively involved in these systems through extended producer responsibility and design changes to their products to support reduction, reuse, recycling and recovery of plastic resources.

The Federal Government's proposed actions using the CEPA would interfere with these existing schemes and with the provinces' waste resource recovery plans, and will in fact be an impediment to establishing the Plastics Circular Economy.

8. Conclusion

Husky and the plastics industry is committed to protecting the environment, economy and consumer's health and safety through the responsible management of our products. Husky is pleased to see the Federal Government recognize the essential role played by plastics in our healthy lifestyle and protection of the environment and economy. The Discussion Paper is best utilized as a tool for continuous improvement to reach our societal goals of Zero Plastic Waste.

Husky is strongly opposed to the Proposed Order. This action is unsupported by science, including ECCC's own Science Assessment, which failed to conclude or even identify that macroplastics and microplastics could fall within the definition of a "toxic substance" for the purposes of the CEPA. The Science Assessment also fails to demonstrate any science that would trigger the use of the precautionary principle and a declaration of toxicity under the CEPA.

Husky is committed to driving recycling, keeping plastics in the value stream and out of landfills and the natural environment. Developing sustainable end markets, investments in advanced technologies for processing, design and recyclability requirements, post-consumer recycled content requirements and greater consumer education and awareness are the keys to reducing the amount of plastics going into landfills or waterways. This can be accomplished through CCME's approach with collaborative effort between federal, provincial, municipal, industry and other stakeholders.

[43] Stewardship Ontario, "Thinking beyond the box" at page 12, online: https://stewardshipontario.ca/wp-content/uploads/2013/02/Blue-Box-History-eBook-FINAL-022513.pdf.

Thank you for allowing us to contribute to this consultation and ask that our detailed response in the appendix be reviewed. We would appreciate the opportunity to meet with you to discuss our position and better ways to manage plastics.

Sincerely,

HUSKY INJECTION MOLDING SYSTEMS LTD.

Joachim Niewels
Vice President, Innovation and Sustainability

cc: Hon. Jonathan Wilkinson, Minister of the Environment and Climate Change
Hon. Patty Hajdu, Minister of Health
Hon. Mary Ng, Minister of Small Business, Export Promotion and International Trade
Hon. Chrystia Freeland, Deputy Prime Minister and Minister of Intergovernmental Affairs

APPENDIX "A"

Detailed Response to the Discussion Paper

Questions for discussion

Managing single-use plastics

1. 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?

Comment:

We believe the Discussion Paper should be a tool to identify areas where additional or special treatment should be applied to products and not bans. As mentioned earlier in our response, the Environment and Climate Change Canada ("**ECCC**") proposed integrated management approach to plastic products discussion paper[44] (the "**Discussion Paper**") is not an integrated approach to managing plastics as it does not address policy alternatives and their impacts. The approach requires extensive upgrades and expansion to assess alternatives and impacts beyond the environment dealing with economics, life cycle impacts, health and safety among many other factors.

Scientific research informs us that banning products is not the solution for reducing plastics waste and environmental impacts. Bans will instead lead to unintended consequences such as increased greenhouse gas (GHG) emissions, increased energy usage and more waste in our environment from alternatives substituting plastics.[45] We believe that the shape and weight of a product and not just the material that it is made from can contribute to waste diverted from the recycling stream to landfills or incineration. This can be described as the "form factor". In a material recovery facility (MRF) where post-consumer recycled material is collected and sorted, small objects end up in a waste stream instead of a value recovery stream. The size, shape and weight are contributing factors to valuable materials "slipping through the cracks" of the recycling stream and not being effectively sorted, no matter the type of material. We encourage the federal government to include form factor when evaluating alternatives to plastic and encourage investment in innovative technologies and infrastructure improvements to address value recovery of post-consumer recycled material.

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[44] ECCC, "Discussion Paper: A proposed integrated management approach to plastic products: discussion paper" (October 7, 2020) online: https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/plastics-proposed-integrated-management-approach.html.

[45] UK Environment Agency, "Life Cycle Assessment of Supermarket Carrier Bags", online: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291023/scho0711buan-e-e.pdf; The Danish Environmental Protection Agency, "Life Cycle Assessment of Grocery Store Carrier Bags" as reported by BioPlastics News (October 31, 2019) online: https://bioplasticsnews.com/2019/10/31/life-cycle-assessment-of-grocery-carrier-bags-by-danish-government/; Recyc Quebec, "Quebec Life Cycle Assessment on Plastic Shopping Bags" (April 2020) online: https://ciraig.org/index.php/lca-study/life-cycle-assessment-of-grocery-bags-in-quebec/.

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

Comment:

The Federal Government's proposed ban on certain single-use plastics ("**SUP**") will impact Canadian society negatively. It will introduce risks on Canadians' health on a number of levels which includes environment, economic, quality of life, food safety & health, workplace safety and cost of living for all segments of society but especially for lower income groups.

Bans create negative unintended consequences that the ECCC Discussion Paper has not assessed. Further, the Discussion Paper is not even in a position to *attempt* an assessment of negative consequences because it is does not present a fully integrated approach to managing plastics resources and other alternatives, or to review all externalities associated with material use and preservation of natural capital.

Environment:

- The move to alternatives would generate a number of negative environmental outcomes that affect all Canadian communities and sectors of society is the higher carbon footprint of many of these alternatives, which contributes to higher energy use in our food delivery systems leading to greater global warming potentials.[46] This runs totally counter to Canada's goal of reducing its carbon footprint.

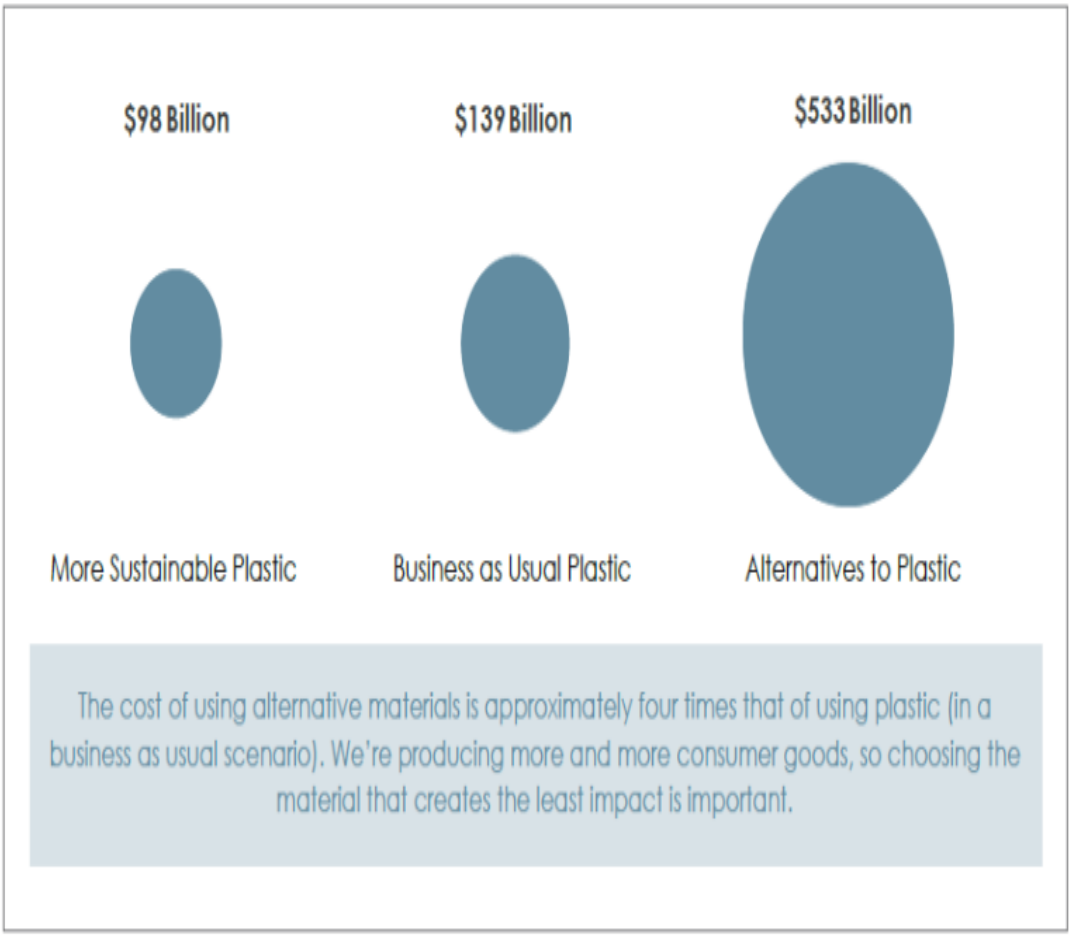
- Plastic pollution results from the improper handling of plastic waste. Where plastic items are substituted by items made of other substances, the type of pollution will simply shift from plastic pollution to pollution of a different substance. As a result, another impact on communities is the creation of more waste, water, air, solid waste by the alternatives that will replace the banned plastics. For example, in the case of paper packaging it can be as much as 3 to 4 times more solid waste and much more in terms of water and air emissions in the production of these alternative materials.[47]

- This is confirmed by life cycle assessments and more recently by the Trucost Study which found the cost of using alternative materials is approximately four times that of using plastic):[53]

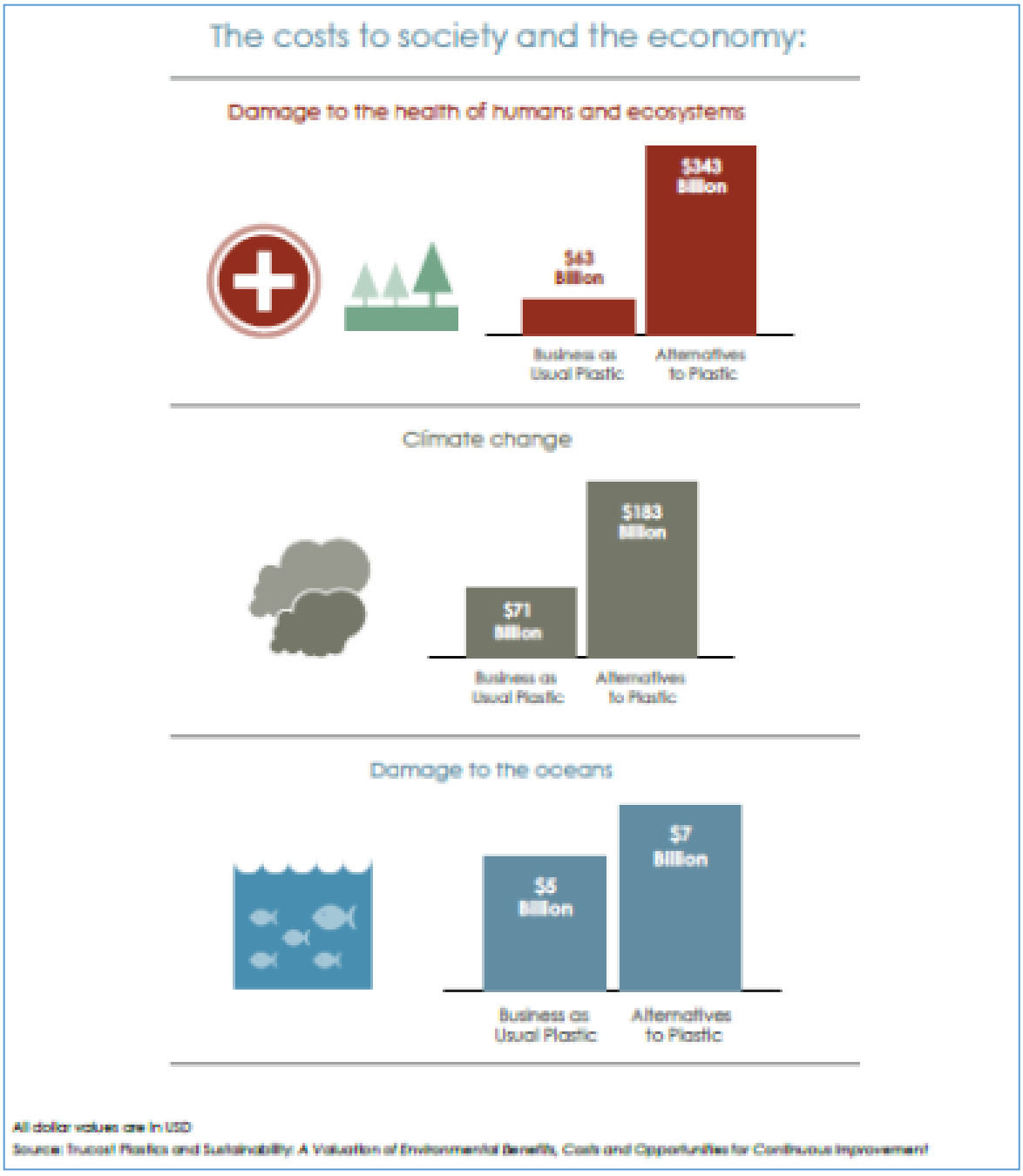
[46] Trucost and the American Chemistry Council, "Plastics and Sustainability: A Valuation of Environmental Benefits, Costs, and Opportunities for Continuous Improvements" (July 27, 2016) online: https://www.trucost.com/publication/plastics-and-sustainability/

[47] Franklin, "Life Cycle Inventory of Foam Polystyrene, Paper-based, and PLA Foodservice Products" (February 4 2011) online: https://www.plasticfoodservicefacts.com/wp-content/uploads/2017/12/Peer_Reviewed_Foodservice_LCA_Study-2011.pdf

What is the environmental cost associated with the materials we use in consumer products and packaging?



The cost of using alternative materials is approximately four times that of using plastic (in a business as usual scenario). We're producing more and more consumer goods, so choosing the material that creates the least impact is important.



Economic:

- The government bans and move to place "plastic manufactured items" on the List of Toxic Substances at Schedule 1 of the CEPA alongside real toxic materials such as mercury, asbestos and other poisonous substances will have a chilling effect on investment and jobs across Canada in all provinces and communities. Ontario, Quebec and Alberta will be seriously impacted.

- SUP manufacturers are instrumental in the fight against COVID. Plastic producers in these provinces quickly ramped up the production of hygienic SUP's to meet the request

of governments and retail sectors for first use packaging such as bags, containers for hand sanitizers and COVID-19 test kits, polystyrene foam food packaging and installed production to manufacture personal protective equipment ("**PPE**") such as face shields.

- A ban on SUPs could dissuade the plastics industry from operating or continuing to operate in Canada, thereby reducing Canada's capacity to be self-sufficient in producing essential products. As we have learned in this pandemic in relation to masks and vaccines, leaving Canada to rely on imports from other countries creates unnecessary risks for Canadians.

- The "CEPA toxic halo effect" will impact investments and jobs not only in the plastics industry but sectors of industry using plastics such as the food industry and other consumer products manufacturing by forcing them to use more expensive alternatives.

- The plastics industry employs over 93,000 Canadians[48] in over 2,000 locations[49], which would be put at risk, and another 200,000 to 300,000 jobs[50] may be indirectly affected by the reputational harm resulting from the CEPA Toxic halo.

- Canada is currently fighting the second wave of the pandemic and the resulting pandemic recession. The loss of jobs in the plastic sector and disinvestment in the Canadian plastics industry risks adding to the unemployment numbers during a time when Canada needs to rebuild and strengthen its economy.

Quality of Life:

- Banning certain single use packaging and products risks leaving Canadians with fewer defenses against the spread of COVID and every day bacteria, pathogens and viruses.

- The Federal Government has repeatedly acknowledged the important and essential role plastics plays in all sectors of Canadian society in our healthy lifestyle and sustainable future.[51]

- Plastic manufactured items provide efficiency in conserving resources, reducing waste through its lightweight and hygienic properties to protect and keep our food supply healthy and reduce spoilage, ease of manufacturing complex shapes and parts and its recyclability, reuse and recovery options.

- The benefits of plastic manufactured items to society go beyond their convenience in single use packaging and products as the pandemic has highlighted the role plastics play

[48] ECCC, "Canadian Plastic Industry, Markets and Waste"
[49] Government of Canada, "Summary – Canadian Industry Statistics": <https://www.ic.gc.ca/app/scr/app/cis/summary-sommaire/3261>
[50] 3x multiplier of direct jobs (93,000) which is a standard multiplier for indirect jobs in the Manufacturing Sector.
[51] Government of Canada, Canada Gazette, Part I, Volume 154, Number 41: Order Adding a Toxic Substance to Schedule 1 to the Canadian Environmental Protection Act, 1999 dated October 10, 2020, Regulatory Impact Analysis Statement at "Issues", online: <http://gazette.gc.ca/rp-pr/p1/2020/2020-10-10/html/reg1-eng.html>; see also Environment and Climate Change Canada and Health Canada, "Science assessment of plastic pollution" (October 2020) at pages 8 and 12 online: <https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/summary-public-comments-received-regarding-draft-science-assessment-plastic-pollution.html>.

in preventing the spread of COVID as evidenced by federal, provincial governments along with retail suspending the use of reusable bags and other reusable packaging in favour of first use packaging and products that ensure hygienic packaging.

Health and Hygiene

- Bans on some items like plastic bags or other single use plastics can result in a shift towards reusable products which can be more susceptible to transmission of pathogens, viruses and bacteria.

- A study in 2010 indicated that consumers rarely wash their reusable bags after use**.** These unwashed bags endanger not only retail workers but also consumers who visit their local retailer and grocery store.[52] Consumers cannot be trusted to clean their reusable bags as recent surveys found over 55% of consumers never wash their bags.[53]

- The impact of unwashed bags and also their spread of pathogens throughout a grocery store has been documented in numerous studies including the following research:

    - **The International Outbreak Museum** – Reusable Bags – Norovirus
    - **Study: The Spread of a Norovirus Surrogate via Reusable Grocery Bags in a Grocery Supermarket** - University of Arizona reusable bag study

Cost of Living

- The cost of living will increase and impact Canadians especially those out of work due to the pandemic and low-income groups. The alternatives are more costly than the plastics they are replacing.[54]

- A study by the Canadian Produce Marketing Association dealing with plastic packaging found the following impacts: *"The premature withdrawal of current plastic packaging could have far-reaching unintended consequences. Lack of effective packaging could lead to almost a half a million metric tonne increase in food losses and waste (FLW) above current levels. Valued at CA$2.5 billion, based on average Toronto wholesale prices for 2018, this estimate is conservative. Externalities associated with the premature withdrawal of plastic packaging suggest that the true economic cost would reach $5 billion, perhaps more. This is due to the withdrawal of current plastic packaging creating enormous wider economic consequences for industry and consumers alike."*

- *This supports our contention bans have far reaching negative unintended consequences that will severely impact Canadian's economically and hit them where they can least afford it in their wallets during this pandemic and future events."*

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[52] University of Arizona, "Assessment of the potential for cross-contamination of food products by reusable shopping bags" in Food Protection Trends, 31(8):508-513 (2011) online: < https://www.researchgate.net/publication/230760262_Assessment_of_the_Potential_for_Cross_Contamination_of_Food_Products_by_Reusable_Shopping_Bags>.
[53] Canadian Plastic Bag Association National Survey by Oracle Poll, May 2020.
[54] The New York Times, "Taking Aim at All Those Plastic Bags": <https://www.nytimes.com/2007/04/01/weekinreview/01basics.html>

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

- It is inappropriate to suggest single use plastics are harmful since they were developed to protect people's health, safety and security of their food supplies.

- The Federal Government can best reflect the needs of all Canadians including those with disabilities by recognizing the essential role single use plastics and the banned items play in providing Canadians a healthy lifestyle by working collaboratively with industry and the provinces to manage all plastics and maintain plastics benefits in the economy.

- This is a waste management and litter issue that is addressed through education to reduce littering behaviour and implementing recovery programs for used plastic resources to be feedstocks in the economy.

4. 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?

- It is our position that the marketplace will choose its packaging types and materials whether they be plastic, paper, metal, glass, composites, compostables or innovative plastics based on the application needs and end-of-life options available to manage the packaging or products. Each material, package or product type have their own set of characteristics to meet the needs of the marketplace.
- The criteria compostable plastics should be required to meet is that it is certified by a third party to be compostable, and meets all the performance criteria of the certification, and widely accepted at processing facilities.
- Proper education is required as consumers may put non-compostable plastics in the stream.

Establishing performance standards

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

- Best-in-class systems, such as the European Single Use Plastics Directive 2018, mandate recycled content minimums. This instrument is critical to driving a circular economy for plastics as it:

    - Decouples recycled material markets from virgin markets - Fossil based material will always be cheaper than recycled materials
    - Creates demand for recycled materials and drives favorable and sustainable economics for recyclers
    - Requires transitioning from materials that cannot operate in circular manner to ones that can
    - Does not limit producers to sourcing material from one geographic region.

- Recycled content minimums should be carefully calculated and phased in over a period of time. Consideration should be given to:

    - Current available supply of material
    - Alignment with recovery targets and the expected growth in material recovered
    - Current state of technology for sorting and recycling
    - Planned investment and ongoing innovation into sorting and recycling

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

Please see answers to 7, below.

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

- Recycled content minimums should be carefully calculated and phased in over a period of time. Consideration should be given to:

    - Current available supply of material
    - Alignment with recovery targets and the expected growth in material recovered
    - Current state of technology for sorting and recycling
    - Planned investment and ongoing innovation into sorting and recycling

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

- This is changing due to new innovations in processing and recycling plastics, but generally food contact products have stringent controls on recycled feedstock and the contaminants that accompany these recycled materials including additives. New chemical recycling processes are emerging to take used plastics back to their virgin form.

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

- Before any minimum recycled content targets are set there must be a high level of collaboration with industry experts from the plastics value chain such as manufacturers of products to recyclers. This should be sector specific.

- Considerations should include health & safety, performance requirements specific to the product and sector, government regulations on product or sector, feedstock supply & availability timing, flexibility in application of minimum requirements (i.e. lack of available supply).

- Additionally see answer to #7.

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

- **Overarching principle:** "One size does not fit all" – each sector, product and or resin type have specific performance requirements distinct to their applications and in some cases government regulation on the health and safety of a product.

11. 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?

- Keeping administrative burdens to a minimum is important for long term sustainability.
- There are emerging third party verification processes worldwide that have audit processes industry can contract.
- It is recommended that industry access approved certification service providers recognized by compliance organizations to verify PCR content.

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

- Government Procurement – Governments spend billions on procuring goods and services. Setting recycled content specifications on all goods and services and where applicable would support PCR plastic content products and their use.
- Labelling and/or consumer information on PCR content that is standardized across all sectors to educate consumers on the products they buy.
- Research and development funding for the development of new technologies to recycle and create new feedstocks from plastics resources.
- Infrastructure funding for plastics recycling and recovery processes.
- Accelerated depreciation rules for plastic technologies and operations recycling and recovering used plastic resources collected in Canada to support the establishment of domestic Plastics Circular Economy and Resource Recovery operations.
- Promoting design for recycling innovations to help prevent closures and caps from bypassing the blue bin recycling stream.
- Ensuring end-of-life responsibility.

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

Comment:

- The Government of Canada has been collaborating with the Provinces and Territories through the Canadian Council of Ministers of Environment (CCME). Through this collaboration and consultation with industry and stakeholders the CCME Strategy on Zero Plastic Waste was finalized November 2018. The strategy outlines a vision to keep all plastics in the economy and out of the environment. Extended producer responsibility ("**EPR**") is a crucial part of the strategy in managing our plastics and other waste resources.

- The responsibility of waste and resources through Canada's Constitution resides with the provinces & territories. The provinces know best what local solutions are required to meet their environmental, economic and social sustainable development goals. A one size fits all with waste & resource management centrally controlled from Ottawa does not serve provincial interests and local needs.

- The Federal Government has made its intentions clear by using CEPA and proposing to add plastic manufacture items to the List of Toxic Substances at Schedule 1 of the CEPA, that it is the quickest and easiest route to banning plastics and allows the Federal Government a free hand to implementing future bans on other plastic products and packaging or other regulations at the whims of the Minster of Environment. This will impact the provinces' economies, environment and will affect communities across Canada in lost jobs and investment. In fact, the provinces and municipalities have now lost control to Ottawa of the local economic development plans and ability to attract new investment.

- **The Government of Canada can best support the provinces and territories by not impinging on provincial jurisdiction to manage their local economies, environment and social needs.**

    - The provinces are already implementing the Zero Plastic Waste Strategy. The Extended Producer Responsibility programs include the management of the proposed banned items by the Federal Government but the bans and uncertainty of future bans on plastics jeopardize consistent and harmonized programs across Canada.
    - The Government of Canada can best support the provinces and territories by working collaboratively in the federation to promote harmonized EPR programs across Canada through the CCME.
    - The Federal Government can support the plastic value chain with research & development funding, accelerated depreciation on plastics recovery/recycling infrastructure, education programs targeting all Canadians on managing plastics and other used resources, all of which will support provincial programs in keeping plastics in the economy and out of the environment.

- The Federal Government can support provinces with coastal shorelines by engaging foreign governments to manage and implement more effective waste systems. It is a well-known fact 90% of ocean plastics originates from 10 rivers in China, Asia and Africa. These plastics end up on Canada's coastlines in British Columbia and Eastern Canada. Mismanaged landfills and litter in Canada are less than 1% of all plastics in the Canadian economy (Deloitte Study). Banning plastics in Canada will not solve the ocean plastics issue.
- The Federal Government can significantly reduce ocean plastics by having fisheries "better manage" fishing gear and "ghost gear" that contributes to the ocean plastics pollution problem which is acknowledged as the largest threat to our marine environments.