

December 8th, 2020

Dear Minister Wilkinson,

Thank you for all the work you have done to date to move towards Zero Waste and a Circular Economy, and for the opportunity to comment on the *A proposed integrated management approach to plastic products to prevent waste and pollution Discussion Paper* (October, 2020).

We will tell you a little about our organization and then provide feedback in the same order as the *Intentions Paper*. Zero Waste BC is a non-profit association dedicated to driving systemic change towards Zero Waste in BC. Zero Waste is the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health. Our current resource consumption systems of linear-take-make-waste not only create waste but also generate a huge amount of greenhouse gases which constitute some of the discharges that threaten the environment and human health. We are also attaching the recently updated Zero Waste Hierarchy as well.

We are pleased that the Ministry has been responsive to the strong demand to move towards Zero Waste, and in particular Zero Plastic Waste, from Canadians and hope that this feedback will assist in developing and strengthening our systems.

Sincerely

Sue Maxwell
Director
Zero Waste BC

Overall comments

While there are many positive steps and approaches mentioned in the discussion paper, we are concerned that the actual consultation questions are too narrowly focused. The objective “eliminate certain sources of plastic pollution” is laudable but really must start with reducing plastic use overall. To move towards a Zero Waste and low carbon economy, the Canadian government must commit to a massive reduction in plastic production and incentivize the development of reuse and refillable systems across key sectors, at the top of the waste hierarchy, rather than relying entirely on recycling [and the industry to make “better” plastic]. This should include not permitting any new virgin plastic manufacturing facilities in Canada and a cessation of subsidies to the fossil fuel industries. Sustainability requires enlightened and progressive action in all sectors of the nation’s economy, including waste. Rather than incrementality, we need transformational change in this next [decade of action](#).

Notwithstanding the above, the paper mentions the *precautionary principle* but to really put it into effect we need to rethink our product delivery systems to ensure they are healthy for all ecosystems, humans and other species, and communities both local and global. A growing number of studies are showing risk from human exposures to plastic and toxic additives so we need to minimize the risk by reducing exposure.¹ We also need to reduce the exposure of other animals to plastics. Rather than allowing new plastic types to be released, we need to eliminate problematic plastics and additives and only allow plastics that have been proven to be safe (note: ensure that the industry funds but does not direct the research). Work should be conducted to look at the overall impact of products including both upstream and downstream GHGs, if the materials used are renewable or non-renewable, and the complications arising from the plastics being discarded into the environment. While the degree of litter is an important factor, an even more important factor is the total volume of wasted materials (landfilled, burned, illegal dumping, litter and pollution). Waste composition data should help to prioritize actions. Instead of restricting uses and materials once harm is proven, we need to reverse this approach and only approve a material or use if it can be proven both for human and environmental health and of net benefit to society.

The first priority should be determining what materials and for which uses are allowed and how they are labelled. This would include reducing or eliminating the most wasteful products (single-use items) and hard-to-recycle types of plastics (for example, expanded polystyrene and multilaminate packaging). For the remaining types, there should be a bonus/malus tax system developed for the different types of plastics weighted based on a number of factors, including the degree of harm that they do, ability to be reused or recycled, sustainability, distance travelled, pervasiveness in the environment, etc. This should be developed internationally and

¹ Muncke et al. (2020). Impacts of food contact chemicals on human health: a consensus statement. *Environmental Health*. Accessed at https://uploads-ssl.webflow.com/5e5989de7d8ff17dd9d726c9/5e5ec3f0181cf6cf9a71db88_Impacts%20of%20food%20contact%20chemicals%20on%20human%20health-%20a%20consensus%20statement.pdf.

be included in an international agreement to drive innovation and product design change. This should be in addition to any fees managed by EPR programs.

Roles and responsibilities

This section fundamentally misses the aspect of reduction. It is very clear now that our focus for fifty years on recycling has not proven to have been effective. Instead, the scale of plastic consumption has escalated and is forecast to continue to escalate unless serious reduction measures are put in place. Even if we capture an increased percentage of the material for recycling (much of which is down cycled), the overall volume of this fossil fuel based material that is mismanaged will increase. All of the sectors noted here must work together on reducing, reusing and extending the life span of existing plastics. This can come about through rigorous procurement policies, changing to reusables wherever possible, and only producing plastics that can *currently* be recycled and for which strong markets exist for their use in durable products. It is important to work with the provinces and territories but rather than focus on creating “new revenue streams through improved value recovery, and markets for new technologies and materials”, the focus should be on creating new markets for systems that provide refillables and reusables, or extend the lifespan of products made with plastic. This could be mug- and tiffin-share programs, Zero Waste grocery stores, auto dismantling facilities, product repair centres, sterile processing departments for health care settings, parts manufacturers, tailors, and numerous other businesses. We appreciate the obligation to work “with industry” as mentioned in the Ocean Plastics Charter targets, but care needs to be taken to ensure the needs of the environment and society are the prime drivers of the changes required. Prioritization of actions should be done using the [Zero Waste Hierarchy](#). When looking at employment, it is important to note the opportunities with recycling but also many more jobs with the addition of reduction, reuse, refilling, sharing and repair.

The focus on technology should not permit the development or continued use of technologies that just perpetuate the status quo (these include waste-to-energy, pyrolysis, refuse-derived fuel, chemical recycling [plastics-to-fuel], gasification, and fuel for cement kilns) as none of them are circular and the time and resources that get spent on these are the opportunity costs of not developing the more essential technology and systems such as for refillables. A recent report on chemical recycling shows that even the type known as plastic-to-plastic may be a costly detour from the actions that are needed today.²

If the federal government chooses not to fulfill its role in changing the system, then these powers should be given to the provincial governments.

Managing single-use plastics

The questions asked in the discussion paper were very narrow in scope and are missing more important considerations. There is a pressing need to ensure that the focus is not just on what

² Patel, D. et al (2020). All Talk and No Recycling: An Investigation of the US “Chemical Recycling” Industry. Accessed at <https://www.no-burn.org/chemical-recycling-us/>

leaks into the oceans at the end-of-pipe but to fundamentally decrease, if not eliminate, upstream plastic production and plastic use. Plastics today come from fossil fuels. Reducing their production would play a key role in reducing greenhouse gas emissions. Microplastics (which we are just starting to understand) come from all types of plastic uses and enter the oceans in a myriad of ways. A precautionary principle approach would have us look not just at the forms of litter we see today but at a system-wide level where we need to eliminate and replace the use of fossil-fuel for both energy and materials, reduce use of many kinds of plastics, and extend the life span of the products where plastics are used. The scope set for these bans needs to be far more inclusive than just the tip-of-the-iceberg (i.e. six) items noted in the paper. Instead of banning just a few items, as many items as possible should be banned. Considerations should be given to those plastics that can be replaced, and to where a concurrent strategy can be developed to minimize the use of the remainder by changing the systems that allowed them to develop in the first place. The latter would include discontinuing fossil fuel industry subsidies, ceasing the uncontrolled development and release of problematic products (such as expanded polystyrene) into the manufacturing stream, and internalizing the costs to the environment and taxpayer.

The first bans should be the six single use items proposed as well as disposable cups and lids, beverage bottles and caps, disposable dishware, cotton swabs, balloon sticks, oxo-degradable plastics and plastics labelled 'biodegradable' or 'compostable', black and dark coloured plastics, plastic packaging made of mixed materials, and all forms of polystyrene and polyvinyl chloride (PVC). At this stage, it would not be recommended to exempt items that come with other products (such as straws with juice boxes). Ensure that bans are implemented rather than restrictions, voluntary measures or guidelines.

Consider also that produce and bulk food plastic bags, coffee pods, dry cleaning bags, personal wipes, beverage containers, and disposable personal care items can be substituted with reusable or non-plastic options. There is also the opportunity to return to sterile processing for many of the uses of single-use items (SUIs) in medical applications. Many uses of portion cups and sachets can also be replaced as several food service establishments across the country have already demonstrated.

It should be noted, however, that a simple switch of material type of SUIs may not be the most prudent. Look at the impacts of the replacement products and put in policies to dissuade SUIs as a whole category, regardless of material type. Encourage replacement with reusable and refillable items rather than just a switch to fibre which, in itself, has a significant environmental footprint. For the remaining SUIs, there should be deposits paid on them, an inclusion in Extended Producer Responsibility (EPR) programs and a plan to phase out non-recyclable materials.

Cost considerations should include the ongoing and future harm from all of the microplastics and toxics associated with plastics that are already distributed widely in our ecosystems. While studies are being undertaken to better understand microplastics and related costs of

mitigation, immediate efforts and related expenses should be turned to minimising further damage downstream.

Part of plastics analysis should include looking at how these services that plastic offers used to be filled and include an analysis of both the potential and practicality of turning back to those plastic-free systems. Life cycle analyses should only be used if they were developed by government or a respected environmental organization and only when comparing options rather than in order to justify inaction. They should also consider the opportunity to relocalize services.³

On the topic of straws for people with disabilities, Ottawa would benefit from consulting with their representative organizations as well as the appropriate professional support organizations such as speech language pathologists, occupational therapists and dietitians, gathering the facts to ensure the appropriate exemptions. Again, the plastics industry should not be part of this conversation.

Alternatives like compostable, bio-based or biodegradable plastics are problematic at this time. As a start, Canada should follow California's lead and ban the term "biodegradable" on product labels. If the "compostable plastic" category continues, the producers must fund collection and processing infrastructure to ensure that those items do not go into the municipal organics collection systems that are set up for food and yard waste. That will help to ensure that the producers (not the taxpayers) are paying the costs and designing the products to match the real world systems that are required to process them. Current standards for compostability do not match the real world conditions in most composting systems resulting in contamination. Strict standards on their use and disposal will help to reduce the risk of increasing the spread of microplastics. For bio-based plastics, if these are the identical chemical structure as regular resins, they need to be included in new labelling standards to ensure that the content is clear to all users. Bio-based plastics should be restricted to durable uses (not SUIs) and producers must fund EPR programs to ensure recycling, reuse, repair, etc. It is also critical to ensure that bioplastics do not increase the human footprint (i.e. causing virgin land to be converted to agricultural or forestry practices for the production of bioplastics), and to use only waste materials as their feedstock. Bioplastics would also need to be truly circular and be used to produce the same type of products after being recycled (not downcycled). Compostable, bio-based or biodegradable plastics must be included in any EPR or other regulation, and not exempt.

Establishing performance standards

It is concerning that the use of standards appears to be focused solely on recycled content. Standards should be used to regulate: reduction; reuse; requirements for standardized reusable

³ Too often the weight of glass compared to plastic for beverage containers is used to justify using plastic but the comparison should also include using refillable glass locally and the GHG benefits of decreasing the amount of water shipped around the world by localizing the market.

shipping and packaging containers, better labelling of plastics; ensuring plastic in other products (such as car seat, cars, sport equipment, textiles, etc.) are in use for as long as possible; what additives (e.g. dyes or toxins) are allowed; defining what counts as recycling (downcycling should be discouraged); and control of plastic imports and exports. There should be standards developed for refillables and work done with the organizations where rules may be a barrier (such as CFIA, public health, etc.). The contribution that recycled content can make versus the effort required is very little when compared to a focus on prevention of misuse of plastic in the first place. While there should be recycling of plastics, care must be taken to first eliminate the problematic types, ban SUIs and reduce plastic use as much as possible before looking at recycled content. To date, recycled content laws elsewhere have been mainly for SUI and packaging uses and yet these are the kinds of uses we should be phasing out, rather than making them with recycled plastic. This focus on recycled content rather than steps at the higher end of the Zero Waste hierarchy risks losing several more decades of time with marginal results. Focusing on recycling would be better undertaken after standards for upstream production and use are addressed. This would allow time to ban non-recyclable plastics and scale back the use of the remaining types. In this way, the infrastructure needs for the diversion pathways will be clearer and based on future needs rather than current volumes and types. Finally, it will be important to ensure labelling of all durable plastics and work to reduce the number of different types used per application (similar to what Germany did to increase plastics recycling from vehicles). There is also an urgent need for restricting practices (such as adding different layers of plastics for labelling or marketing) and problematic additives (such as toxins, inks and dyes) that make it hard to use those recycled material in other products. Innovation should be less about recovering “value from plastic waste” and more about reducing plastic use and preventing plastic waste.

For a material or product to be used, the producer should fund (but not direct) the research required into its safety and environmental impacts. In no way, should ongoing support of the plastics industry be a consideration for policy decisions.

Where plastics cannot be addressed by the measures suggested above, treat these remaining plastics as a valuable resource. Do an analysis of the key places where plastics would be hard to substitute and save the plastic for those uses while research is done to find alternates.

Further recommendations to the questions for when recycled content standards are suitable:

- Do not include pre-consumer plastic in recycled content standards.
- Do not allow averaging across plastics types for meeting recycled content. The use of averaging across product types to meet collection targets in BC EPR programs has allowed programs to underperform.
- Have a very strong mechanism to verify recycled content to ensure accountability and transparency even if this costs more. These costs must be paid by the producer.
- Do not include chemical recycling as recycled content. It is expensive, costly and can be energy-intensive and this should not be encouraged.
- Research both claims of safety for material use as recycled content as well as claims for exemptions due to reasons of health and safety. Consider the examples of BPA and fire

retardants and include an option to collect harmful plastics but not redistribute them. These harmful materials should be considered like we do mercury or asbestos - a past mistake best recovered and handled responsibly. We also need to ensure claims of unique plastic features are not used by industry to avoid the need to use recycled content.

- Work to ensure the plastics can go back for their original use (not downcycled).

Use regulatory tools, not voluntary, to ensure more time is not lost while pollution continues.

Ensuring end-of-life responsibility

It is important that any infrastructure needed is paid for and built by the producers and not funded by municipal, provincial or federal governments. The use of pyrolysis, refuse-derived fuel, chemical recycling (plastics-to-fuel), fuel for cement kilns, waste-to-energy, incineration or any other high temperature system to address hard-to-recycle plastics should be prohibited. These are just another form of burning fossil fuels and adds to our climate debt, but with additional forms of toxic pollution. The additional costs and restrictions, far from being a barrier, should be an important driver of design change. The higher the costs to producers, the more impetus towards changing material choice for their products and packaging. EPR program costs to producers need to reflect the full life span impact of their choices including GHGs, litter, marine and other clean ups as well as infrastructure for composting, mechanical recycling and waste.

The Government of Canada should hold annual meetings to discuss the progress of all signatories to the Canada-wide Action Plan for EPR. Jurisdictions across the country should share their progress and what they have learned in order to improve existing and future programs. The federal government should work to expedite regulation of existing categories such as textiles, carpet, construction and demolition materials and all forms of packaging. The federal government should be implement regulations where the provinces fail to act. An additional list of new product categories beyond the 2017 categories should be developed with a focus on plastics, durable goods and new types of products. These should include menstrual supplies and household hygiene, contact lenses, cigarette filters, safety equipment such as child car seats, sporting goods, toys, décor, solar panels, electric vehicle batteries, e-cigarettes, etc. The federal government should continue to gather feedback on additional products or uses to add to the EPR plan or to consider for bans.

The Government of Canada should develop the supportive policies and regulations noted in the Canada-wide Action Plan: “eco-labelling; restrictions on toxic substances; recycled content standards and regulations; green procurement policies; environmental performance/voluntary agreements and a variety of other potential standards, bans, guidelines and educational tools” that the federal government is best placed to undertake. The federal government needs to enact laws to ensure that products imported across borders (particularly those from mail, phone or online ordering) are also included in the EPR programs. The federal government

should also be working to coordinate regulation internationally to encourage a more universal, cost-effective approach and level playing field.

Beyond Plastic Waste

In addition to the above, we recommend that the federal government develop a comprehensive Zero Waste/Circular Economy Strategy for Canada using the Zero Waste Hierarchy that sets further targets that will assist provincial, territorial, Indigenous and local governments, and businesses in their waste planning. This should include plans to develop clear communications, gather and share waste data, and create a knowledge hub for new research and resources. There needs to be a very strong focus on the top levels of the Zero Waste Hierarchy. From 2010 until 2018 in BC, the waste diversion rate rose and yet the total amount disposed barely changed due to the increase in consumption. This shows a clear need for an emphasis on redesign, reducing and reusing, in advance of assertive recycling and composting measures. The policies and incentives will need to be broader than just what can be achieved with a focus on Plastic Waste and EPR as it should work with more product and material types, and it should involve more stakeholders and systems beyond the outreach of the present Discussion Paper. This could include green procurement, tax incentives for repair/reuse/refurbishment, Right-to-Repair regulations and mandatory warranty laws, policies to encourage sharing, policies to minimize new fossil fuel and virgin plastic infrastructure, prohibitions on new bottled water plants, and bans on further harmful products and materials. The Strategy should also integrate the actions to reduce and compost the organic portion of the waste stream, produce policies and a certification process to ensure the best and highest use of quality compost (e.g. soil enhancement for high quality agriculture produce). There should be a policy developed for which “compostable “ products are permitted, how they should be handled at end of life and who will pay for those systems. There should also be funds for innovation and to support local groups working on reuse and reduction programs.

Summary

The federal government should develop a comprehensive Zero Waste/Circular Economy Strategy for Canada using the Zero Waste Hierarchy. The plastics component should include:

- developing a bonus/malus system that is used internationally to diminish plastic use and particularly the most environmentally harmful types and uses;
- setting clear, time-bound reduction targets on plastic production and across sectors that utilize or sell single-use plastics for packaging;
- expanding the ban to include the SUI items noted above as well as select material types (oxo-degradable plastics, plastics labelled ‘biodegradable’ or ‘compostable’, black and dark coloured plastics, plastic packaging made of mixed materials, and all forms of polystyrene and polyvinyl chloride (PVC))
- working with all levels of government to ensure producers and polluters are held responsible for the full lifecycle of their products, including designing for the environment and covering cleanup costs;

- investing in delivery systems centred on reuse/reusables, refill and new and innovative alternative product distribution models, that are zero waste, low carbon and socially responsible; and,
- banning the export of plastic waste, as well as the discharge of fragmented plastic materials (e.g. microplastics from textiles) into the receiving environment.

We appreciate you taking the time to review and consider our recommendations from Zero Waste BC.