November 19, 2020

Attention:
Ministry of Environment and Climate Change Strategy – Recycling Regulation Amendments
ExtendedProducerResponsibility@gov.bc.ca

Dear Ministry Staff:

Thank you for the work that you have done to date to reduce waste and for the opportunity to comment on the *Recycling Regulation Policy Intentions Paper* (September 12, 2020). We appreciate the effort put in to develop the Plastics Action Plan and see the strong response to the call for feedback on that as an indicator that the Province is on the right track. This Intentions Paper is another positive step on the path to Zero Waste. As we hear that this paper and the feedback that you receive will inform the workplan for the next five years, our feedback is broad in scope and will address more than the questions raised.

We will tell you a little about our organizations 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 Canada is a non-profit, non-partisan organization that promotes solid waste solutions that eliminate the need for landfills and waste-to-energy plants. 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 including an attachment of 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 from British Columbians and hope that this feedback will assist in developing and strengthening our systems.

Sincerely

Jamie Kaminski
Director
Zero Waste Canada

Sue Maxwell
Director
Zero Waste BC

Extended Producer Responsibility

While we appreciate the value of the *Recycling Regulation* (the Regulation) and its effects on recycling, jobs, economic impact, and shifting the expenses from taxpayers to producers and consumers, it has not delivered on the key objective of the *Canadian Council of Ministers of Environment Canada-wide Action Plan for Extended Producer Responsibility* to which the government of British Columbia signed on: "the Action Plan seeks to reduce the toxicity and environmental risks from products and product waste and to improve the overall life-cycle performance of products, including reducing associated greenhouse gas emissions." We recommend taking steps to foster the redesign of products, reduction of toxics and material throughput, improve the quality and lifespan of products, reuse of products, the use of refillable or rechargeable containers, the ability to repair products and fostering local production and markets when possible. Programs should not be able to use the materials for fuel, energy nor to produce refuse derived fuel. The full environmental, social and health costs of products need to be reflected in the fees charged to producers. This should be done through amendments to the Regulation that could include adding category-specific targets for the desired elements and penalties for failure to meet them. Stronger enforcement of the Regulation is needed as well. In addition to those steps, the Province should add supportive policies and regulations as outlined in Section 7 of the CCME plan.

Furthermore, it is critical that the deficiencies in our current system (described on pages 5 and 6 of this document) are addressed for both existing and future programs.

Mattresses

We fully support the intention to add mattresses and foundations to the Regulation. There should be no exemptions -camping, residential, commercial and institutional mattresses and foundations of all types (including electric or adjustable) should be covered. Exemptions only lead to confusion. We hope that all programs developed for this will include consideration of existing collection programs and processors. As part of the challenge for mattresses is transportation to a collection spot, programs should be required to address this concern through provision of pick up services. This program should alleviate the costs to tax payers for illegal dumping and large item collection of mattresses.

Residuals

We fully support the intention to add these categories to the regulation:

- Compressed gas in canisters - fuel and helium
- Fire extinguishers
- Pool and spa chemicals
- More pest control and rodenticides
- Fertilizer and weed control
- Automotive additives and touch-up paint
- More paint, sealers and adhesives
- Bear spray and flares
- Veterinary medicine for pets

- Medical syringes

This proposed list is a good first step but we would recommend making the categories more complete. This will make it easier for end users to know if the products are covered.

- In addition to veterinary medicine for pets, we recommend that all pharmaceuticals are covered including those for livestock/fish farms/agriculture (including food that contains antibiotics) and the drug samples provided to medical offices.
- In addition to medical syringes, consider other sharps such as razor blades and scalpels. Ensure this program provides the collection containers so that there is an incentive to make these reusable. Ensure this covers residential, ICI and other settings.
- Consider adding categories to cover the small amount of odd hazardous materials which a resident would find hard to dispose of correctly (mercury, ammunition, etc.). Thermometers and blood pressure cuffs need to be regulated as well as any other mercury containing products.
- Particular attention should be paid to liquid and compressed chemicals which are seen as hard to dispose of correctly.
- Consider also including agricultural pesticides.

Prioritization should be by degree of hazard or toxicity and by volume. Categorization should be expansive rather than exclusionary (limit exemptions). Defining of categories may be best done through a focus group to see what wording resonates and results in the correct kinds of products being returned. Categories need to be simple for people to understand and based on use or application rather than more technical details. There should be no exemptions; even items intended to go down drains should be able to be returned should there be residuals. We must urgently limit the chemicals released into the environment.

Electronic and Electrical Product Category

With the trend to add electric components to items that do not require it, we support blanket regulatory coverage of all electric items except the large built in items noted such as elevators, escalators, etc. This should include e-cigarettes, vapes, motorized yard decorations, large drones, photovoltaic (solar) panels, and electric vehicle batteries. It should also include all products that contain batteries and perhaps there should be some sort of additional fee if the product does not need batteries (like balloons, shoes, cards) or the battery cannot be accessed to replace or remove it, in order to drive design change. We also support the inclusion of associated elements like electric cords and printer cartridges. There also needs to be a system to ensure all transformers (or PCB-containing products) are handled appropriately and the costs covered by the producers. We recommend that the electrical category also include all solar-powered devices which are becoming more common.

Priority should be driven by volume as well as risk of harm (such as fire from mismanaged batteries). Priority should also be given to policy that can prevent the unnecessary use of batteries. Aside from the fixed installation building components, we do not see the need for additional exemptions.

Packaging and Printed Paper

The CCME EPR plan notes that a model program covers both residential and non-residential waste streams. For packaging and printed paper, including only the residential portion on the Regulation has been problematic. The distinction between residential and ICI is not so clear for many buildings that may include condos which are both used as residences as well as visitor accommodations. Some buildings include both residences and businesses and they often share waste bins or rooms. Many forms of packaging could easily end up in either the residential or ICI waste streams. In smaller communities, especially those further from material markets, there have been significant challenges in collecting and selling the materials from the ICI sector since the volumes were reduced with removing the residential materials and with changes related to the Recycle BC program and the international recycling policy changes. ICI waste makes up a large portion of the solid waste stream and so allowing recycling to continue to be an *optional additional* service to the ICI sector while allowing the landfills to continue to fill with recyclable material at a cost to the taxpayer is not an option. Adding ICI PPP to the regulation would also cover the gap of PPP from residences in buildings that also have ICI uses.

The Intentions paper notes the need to understand the difference between urban and rural settings. It is more common in urban areas to have recycling services available to the ICI sector but it is not universal and it is usually an optional additional cost to a business. In rural settings, there may be no option for recycling locally. A few municipalities have started to make three steam waste sorting mandatory but it is not the norm. To ensure PPP recycling is available across the province, that the costs are borne by the producers, and that the service fees for collection are not a barrier to recycling, **ICI PPP should be regulated in the Regulation.** This program could shift recycling costs from the end users to the producers which should provide additional incentive to redesign systems and products. Ensuring end users do not need to pay for recycling services could also allow service providers to streamline services or provide group services (such as for multiple retailers in a mall).

An additional reason for regulation is the fact that there has been a lot of concern over where materials collected to recycle end up. This is as a result of changes in international policy. Recycle BC, which due to regulation, has provincial recycling processing set up and is required to provide audited reports on the end fate of materials has been able to avoid many of the issues facing other recycling programs. That is not the same for ICI PPP for which some journalism investigations have revealed significant issues. Transparency and accountability for management of ICI PPP is another reason that regulation is required.

As noted in the paper, numerous requests to regulate this category have been received over the past decades. If phasing is required, ensure that institutions (hospitals, schools, universities, etc.), food services, office buildings, retailers (including grocery stores), businesses in municipal boundaries and locations that host gatherings such as halls, arenas, stadiums, etc. are included in the first phase. Large scale manufacturers, industrial facilities and remote locations such as mines could be in the second phase. Larger producers could be permitted to have their own

programs provided the standards and intentions of the Regulation are met (similar to for some other product categories).

The implementation and requirements for this category should reflect what has been learned from previous experience. These eleven points above reflect principles that should apply to all EPR programs.

1. Provide an opportunity for new and existing collection, transport and processing service providers to participate in the program. There are a lot of organizations already doing this work in some communities so care has to be taken to not displace these businesses or organizations (many of them local and small) while at the same time ensuring they can meet the standards that will be required. These standards should be set to make sure that the operations are sound for environmental, safety, labour, insurance and ethical systems. All service providers should have the right to be compensated by the program as long as they meet the standards. Compensation could include elements of both a bounty system and coverage of fixed costs. This could be based on setting a minimum volume to qualify or a tiered payment system based on volume collected. The need is to make sure that businesses can and want to participate and that where possible, competition is maintained. Processors should be able to access the materials on the same basis.
2. Ensure that competition is maintained for collection but that service providers are appropriately compensated. Ensure fair treatment of service providers with stronger intervention than in the past for matters of payment and access to contracts. Ensure that there are no gag clauses in contracts. Contracts should also provide whistleblower protection to encourage better systems.
3. Require reuse to be a key component of any plan. The ICI sector has a unique opportunity to implement more reuse of packaging materials. There are already good examples such as reusable bakery trays and dairy crates. The ICI sector is responsible for most of the wooden pallets that are disposed of and that could be replaced by reusable options.
4. Ensure the governance includes local governments, environmental non-governmental organizations and others who have an interest in the successful outcomes of a program.
5. Ensure full transparency for management of fees, criteria for contracts, and detailed data on all material types (instead of aggregated metrics) for both production and recycling.
6. Ensure programs provide funds for innovation, particularly around reuse, refill and repair. These funds should go to organizations in order to help move the materials up the Zero Waste Hierarchy or pay a premium for these services. Targets should be set for this.
7. Ensure programs pay for the full costs of their products. Programs should not be able to rely on the unpaid services of municipalities or other service providers. There should be penalties for materials that continue to go to waste or are littered. Contracted service providers should be paid for staff, space , equipment, overhead and other costs associated with the program.
8. Services must be equitable across the province. Services should be provided within all municipalities (and First Nations communities when requested) and this should be a requirement for residential PPP as well as all EPR programs.
9. The Ministry should increase its oversight and enforcement of the regulation and EPR programs.

10. Fees should be set to differentiate between different materials and incorporate the upstream and downstream impacts to help drive the use of environmentally-preferable materials, reusable/refillable systems and standardized products.
11. The program should not be able to use the materials for fuel, energy nor to produce refuse derived fuel. Allowing this to be an approved end process only encourages further poorly designed packaging and printed paper.

Specific to the PPP category, many forms of packaging are changing over to compostable versions. This is a problem because the infrastructure does not exist everywhere to handle this, many materials (such as compostable plastics) may not break down in the local composting system or will produce methane gas if sent to the landfill and the costs are still borne by local governments. These materials are often confusing for the public to determine where they should go. A policy should be developed restricting the use of problematic forms of packaging and mandating clear labelling for suitable types. The suitable types need to be included in the EPR program and costs paid for the processing.

Marine Debris

Consider adding the key kinds of marine debris (such as fishing gear, vessels, dock materials) to the Recycling Regulation but in addition to the ability to recycle these at end of life, these programs should be responsible for funding cleaning up of any marine debris. This likely would increase costs of the products and so should provide more incentive to take care of the products and search for it when lost. In the case of dock materials, the use of Styrofoam/expanded polystyrene should be banned. For vessels, regulation could result in facilities to handle derelict or old vessel deconstruction and recycling as well as a registry of owners. Consideration should be given to tagging key types of marine debris (like nets) so that they could be tracked.

Implementation

While we appreciate the work it will take to accomplish the actions raised in the Intentions Paper, we are concerned that the timeline for this may be too long and that the scope of the work proposed is too narrow. We are facing climate and ecological crises which require immediate actions to transform how we consume materials.

Additional Product Categories

The province had committed to delivering the PPP and residual components of this intentions paper by 2015 with further work to have happened not only on mattresses but also all textiles, carpet, furniture and construction and demolition waste by 2017. Given that these programs were supposed to be in place already, this seems like a significant amount of waste and materials that will continue to be a burden on taxpayers and local governments and fill up valuable landfill space during the ongoing delay. The BC government has adequate experience to be able to implement these programs and so should ensure that the resources are available to fulfill its commitment, and address the other waste-related issues raised by local governments and environmental organizations. The savings (of taxes, greenhouse gases, and

landfill space) along with the opportunities that come with early adoption of the circular economy make this a worthwhile investment.

Other types of products to include in the Regulation are agricultural plastics and twine, cigarette butts, thermometers, sporting goods, water coolers, and safety equipment. Agricultural plastics represent a significant waste stream and are already being collected in pilot programs around the province. The Province has conducted an analysis of gaps in product coverage in the Regulation and all additional gaps identified in that yet-to-be-published report should be covered. Ideally a timeline would be distributed noting which product categories would be covered by which year. This tool would allow both governments and businesses to plan appropriately.

Though not a separate category of material, systems need to be put in place to address the products and packaging coming into BC through online, phone or mail orders to ensure a level-playing field.

Beyond the Regulation

In addition to the above, we recommend that the province include those strategies and others in a comprehensive Zero Waste/Circular Economy Strategy for BC using the Zero Waste Hierarchy that sets further targets and will assist 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 the waste diversion rate rose and yet the total amount disposed barely changed due to the increase in consumption showing a clear need for rethinking, reducing and reusing over recycling and composting. The policies and incentives will need to be broader than just what can be achieved in the Regulation as it should work with more product types and involve more stakeholders and systems than the regulation does. This could include green procurement, tax incentives for repair/reuse/refurbishment, Right to Repair and mandatory warranty laws, policies to encourage sharing, policies to minimize new fossil fuel and virgin plastic infrastructure, preventing 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 and determine policy for products and packaging that get composted rather than recycled. There should also be a fund for innovation and to support local groups working on reuse and reduction programs.

We appreciate the opportunity to provide feedback and your time in reviewing our recommendations.

Zero Waste Hierarchy of Highest and Best Use 7.1

Purpose

The Zero Waste Hierarchy describes a progression of policies and strategies to support the Zero Waste system, from highest and best to lowest use of materials. It is designed to be applicable to all audiences, from policy-makers to industry and the individual. It aims to provide more depth to the internationally recognized 3Rs (Reduce, Reuse, Recycle); to encourage policy, activity and investment at the top of the hierarchy; and to provide a guide for those who wish to develop systems or products that move us closer to Zero Waste. It enhances the Zero Waste definition by providing guidance for planning and a way to evaluate proposed solutions.

Zero Waste Definition

Zero Waste: The Conservation of all resources by means of responsible production, consumption, reuse, and recovery of all products, packaging, and materials without burning them and without discharges to land, water, or air that threaten the environment or human health.

Guiding Questions

Rethink/Redesign	What has led us to our present linear use of materials and thus, what needs to evolve to move towards a closed loop model? How do we re-design systems to avoid needless and/or wasteful consumption?
Reduce	What supports the use of less material and less toxic material?
Reuse	What supports the better use of those products we already have in ways that retain the value, usefulness and function?
Recycle/Compost	How do we ensure materials are put back in the materials cycle?
Material Recovery	What was salvaged from mixed waste?
Residuals Management	What is still left and why?
	What do we need to take out of the system that should not have been circulated in the first place? How do we manage what is left in a flexible manner that continues to encourage movement towards Zero Waste?
Unacceptable	What systems and policies encourage wasting and should not occur?

*Guiding Principles

Closed Loop Systems	Design systems to be closed loop rather than linear in their use of resources
Close to Source	Processes to occur as close to the source as practical
Conservation of Energy	More energy can be saved, and global warming impacts decreased, by reducing waste, reusing products, recycling and composting than can be produced from burning discards or recovering landfill gases.[1]
Do Not Export Harm	Avoid the export of toxic or potentially toxic waste or materials, as well as materials with limited or undefined recycling markets that will be landfilled or incinerated in other regions.
Engage the Community	Promote changes and systems that work with communities to facilitate meaningful and sustained participation, increase understanding, and influence behaviour change and perceptions
Highest and Best Use	Creating and keeping materials and products for a use as high on the hierarchy as possible and in the useful loop as long as possible. Keeping materials from being downcycled where the number of future uses or options are limited. Source separate items and materials to the extent necessary to ensure clean and marketable products and materials for reuse, recycling and composting streams.
Information & Improvement	Collect information on systems and use as feedback for continuous improvement
Local Economies	Support the growth and expansion of local economies (production, repair, and processing) in order to reduce greenhouse gases from transportation, improve accountability, and increase repair and parts opportunities
Materials Are Resources	Preserve materials for continued use and use existing materials before harvesting virgin natural resources
Minimize Discharges	Minimize all discharges to land, water or air that threaten the environment, or human health, including climate changing gases
Opportunity Costs	Consider opportunity costs of investments and ensure investments occur as high as possible on the Hierarchy
Precautionary Principle	Ensure that a substance or activity which poses a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof linking that particular substance or activity to environmental damage
Polluter Pays	Whoever causes environmental degradation or resource depletion should bear the “full cost” to encourage industries to internalize environmental cost and reflect them in the prices of the products
Sustainable Systems	Develop systems to be adaptable, flexible, scalable, resilient, and appropriate to local ecosystem limits

[1] Source: http://zwia.org/standards/zw-community-principles/,

Zero Waste Hierarchy

1	**Rethink/Redesign**	Design and purchase products from reused, recycled or sustainably-harvested renewable, non-toxic materials to be durable, repairable, reusable, fully recyclable or compostable, and easily disassembled
2		Shift funds and financial incentives to support a Circular Economy** over the harvesting and use of virgin natural resources
3		Enact new incentives for cyclical use of materials, and disincentives for wasting
4		Facilitate change in how end users' needs are met from "ownership" of goods to "shared" goods and provision of services
5		Support and expand systems where product manufacturing considers the full life-cycle of their product in a way that follows the Zero Waste Hierarchy and moves towards more sustainable products and processes. Producers take back their products and packaging in a system that follows the Zero Waste Hierarchy.
6		Identify and phase out materials that cause problems for Closed Loop Systems*
7		Facilitate and implement policies and systems to encourage and support Local Economies*
8		Re-consider purchasing needs and look for alternatives to product ownership
9		Provide information to allow for informed decision-making
10		Eliminate or avoid systems that drive needless consumption
11	**Reduce**	Plan consumption and purchase of perishables to eliminate or avoid discards due to spoilage and non-consumption
12		Implement Sustainable Purchasing** that supports social and environmental objectives as well as local markets
13		Minimize quantity and toxicity of materials used
14		Minimize ecological footprint required for product, product use, and service provision
15		Choose products that maximize the usable lifespan and opportunities for continuous reuse
16		Choose products that are made from materials that are easily and continuously recycled
17		Prioritize the use of edible food for people
18		Prioritize the use of edible food for animals
19	**Reuse**	Maximize reuse of materials and products
20		Maintain, repair or refurbish to retain Value**, usefulness and function
21		Remanufacture with disassembled parts; dismantle and conserve "spare" parts for repairing and maintaining products still in use
22		Repurpose products for alternative uses
23	**Recycle/Compost**	Support and expand systems to keep materials in their original product loop and to protect the full usefulness of the materials
24		Maintain diversion systems that allow for the highest and best use of materials, including organics
25		Recycle and use materials for as high a purpose as possible
26		Develop resilient local markets and uses for collected materials wherever possible
27		Provide incentives to create clean flows of compost and recycling feedstock
28		Support and expand composting as close to the generator as possible (prioritizing home, on site or local composting

29		Whenever home/decentralized composting is not possible, consider industrial composting, or if local conditions require/allow, anaerobic digestion
30	**Material Recovery**	Maximize materials recovery from mixed discards and research purposes after extensive source separation
31		Recover energy using only systems that operate at Biological Temperature and Pressure**
32	**Residuals Management**	Examine materials that remain and use this information to refine the systems to rethink, reduce, reuse, and recycle in order to prevent further discards
33		Ensure minimization of impacts by means of biological stabilization of fermentable materials.
34		Encourage the preservation of resources and discourage their Destructive Disposal or dispersal
35		Plan systems and infrastructure to be adjusted as discards are reduced and its composition changes
36		Minimize Gas Production and Release** and maximize gas collection
37		Use existing landfill capacity and maximize its lifespan. Ensure it is Responsibly Managed.**
38		Contain and control toxic residuals for responsible management
39	**Unacceptable**	Don't support policies and systems that encourage the Destructive Disposal of organics and/or the destruction of recyclables
40		Don't support energy and Destructive Disposal systems that are dependent upon the continued production of discards
41		Don't allow the Incineration** of discards
42		Don't allow toxic residuals into consumer products or building materials

****Definitions:**

Biological Temperature and Pressure The ambient temperature and pressure that occurs naturally without the use of added energy, or in any case not above 100 degrees Celsius or 212 degrees Fahrenheit. [2]

Circular Economy An industrial economy that is, by design or intention, restorative and in which material flows are of two types, biological nutrients, designed to re-enter the biosphere safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere. Materials are consistently reused rather than discharged as waste.

Closed Loop System A system not relying on matter exchange outside of the system, as opposed to open loop where material may flow in and out of the system.

Destructive Disposal Discarded materials placed in a landfill or in an Incineration** facility

Diversion An activity that removes a material from Destructive Disposal.

[2] Unless higher temperatures are required, not to exceed 150 degrees Celsius, as a pretreatment (e.g. to control diseases, or reduce pathogens) to be then subject to composting or Anerobic Digestion; the pretreatment should never be used to destroy materials.

Incineration	Incineration is a form of Destructive Disposal via combustion or thermal conversion/treatment of discarded materials into ash/slag, syngas, flue gas, fuel, or heat. Incineration includes facilities and processes that may be stationary or mobile, may recover energy from heat or power and may use single or multiple stages. Some forms of incineration may be described as resource recovery, energy recovery, trash to steam, waste to energy, energy from waste, fluidized bed, catalytic cracking, biomass, steam electric power plant (burning waste), pyrolysis, thermolysis, gasification, plasma arc, thermal depolymerization, refuse derived fuel, or chemical processing of plastics to fuel.
Minimize Gas Production and Release	Keeping out source-separated organics and biologically stabilizing the materials that go into landfill. For existing landfill cells that already contain unstabilized organics, the gas production should be minimized by keeping out rainwater and not recirculating leachate. Minimize methane release by permanently capping closed cells with permanent covers and installing gas collection systems within months of closure (not years). Maintain high suction on collection wells and do not damp down wells or rotate off the wells to stimulate methane production. Filter toxins in the gas into a solid medium that is containerized and stored on site. Note that this is not considered a renewable energy.
Problematic for a Closed Loop System	Materials that make it hard to recycle or compost the materials themselves or other materials. These may be contaminants for a material (like some forms of biodegradable plastics or stickers on fruit and vegetables) or materials that clog processing systems (like plastic bags)
Responsibly Managed Landfills	Manage landfills to minimize discharges to land, water or air that threaten the environment and human health. This must include plans for closure and financial liability.
Sustainable Purchasing	The purchase of goods and services that take into account the economic value (price, quality, availability and functionality) and the related environmental and social impacts of those goods and services at local, regional, and global levels.
Value	The importance, worth, or usefulness of something that may be economic, social, environmental, or sentimental.