What We Heard

Discussions to prepare for the development of the BC Circular Economy Strategy

Fall 2022

Zero Waste BC

ZERO Waste BRITISH COLUMBIA

We would like to thank the Climate Caucus, Recycling Council of BC, Indigenous Zero Waste Technical Advisory Group and VGN Resources for their partnership and all of the participants for their ideas and enthusiasm but note that this document does not necessarily reflect the views or positions of these organizations.

These discussions were held to prepare various groups for the development of the BC Circular Economy Strategy and were independent of processes that the provincial government were pursuing.

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Terminology

Virgin materials - materials that have not yet been used in the economy

Non-virgin materials - those have previously been used, including those that have been reused, refurbished, repaired, recycled or composted.

These terms are defined in the Ellen MacArthur Foundation glossary[1] and help to better reflect our understanding of material flows.

Garbage will be used for unsorted, mixed materials that have been discarded to streams destined for the landfill or incineration.

[1] Ellen MacArthur Foundation (2022). Circular Economy Glossary. https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/glossary

Background

Our current economy is a linear take-make-waste one that overconsumes resources and creates excess amounts of wastes and greenhouse gases (GHGs). To address this inefficient current system, the Province of BC has committed to developing a Circular Economy Strategy as part of its Clean BC plan. In order to raise awareness of the upcoming development of the Strategy, and to generate and share ideas for what should be included, Zero Waste BC held workshops in advance of the provincial engagement.

ZWBC workshops

Four pre-engagement sessions were held with local elected officials, local government staff members, First Nation community leaders and environmental non-governmental organization representatives in the fall of 2022. These workshops built on existing work across sectors to support local Circular Economy and Zero Waste initiatives including: UBCM resolutions, the BC Intermunicipal Working Group on Zero Waste 2017 Discussion Paper; the Climate Caucus Zero Waste/Circular Economy Working Group 's Councillors Handbook, the BC municipal toolkit; Indigenous Zero Waste Technical Advisory Group's(IZWTAG) organizing and toolkit; and policy papers including A Zero Waste Agenda for BC completed by Zero Waste BC in partnership with the Canadian Centre for Policy Alternatives. This document outlines what was heard from participants in those sessions.

Guiding Framework

The first step for developing the Circular Economy Strategy is to define Circular Economy and Zero Waste. Internationally accepted and commonly used definitions are recommended with the Ellen MacArthur Foundation for Circular Economy and the Zero Waste International Alliance for Zero Waste noted as the recognized authorities, respectively.

Recognition of the need to have strong underpinning values and principles led participants to recommend embedding the following when implementing a Circular Economy Strategy and optimizing use of the Zero Waste Hierarchy:

- Traditional Indigenous ways
- Community involvement
- Social equity and Doughnut Economics
- Resilience
- Place-based solutions
- Accounting for regional inequality / regional access
- Opportunities for economic growth
- Local jobs (considering perspectives of front-line workers and diverse perspectives)
- Quality of jobs

- Valuing human labour over extraction of materials
- Reducing use of fossil fuels
- Acknowledging that litter, waste, resource extraction, etc. can impact food security and human health –we are all part of one system
- Measuring success using alternatives to growth and GDP

The inclusion of Traditional Indigenous ways was highlighted at our session with First Nation community leaders, while the need to ensure that the strategy was equitable across regions, provided quality local jobs and reflected place-based solutions was emphasized by leaders from less urban communities.

It was also noted that it is important not to ignore other sources of non-virgin material generation (both source-separated and garbage) aside from municipal sources, including agriculture and industry as the materials flow are all part of one system and the impacts are felt by many parties.

Climate specifically was highlighted given the rapidly growing need to mitigate and adapt. The Circular Economy Strategy should foster resilience, community-based solutions, and more connectedness as we adapt for climate-related weather events, factor this into infrastructure placement and building and make infrastructure multi-use (e.g. add shelter space as part of disaster management). There is the need to invest in people - increased resilience and community support will help to manage during disasters and decrease loneliness and mental health concerns. The change needed is to view waste as a flaw in the system to learn from and address, and to shift to avoidance and reuse over a focus on recycling and disposal.

It was also seen that a focus on a Circular Economy would address more than waste and carbon issues and should be recognized as a way to address the multiple symptoms of our extractive linear take-make-waste system. As such, it was felt that the carbon lens should not be the only measure for prioritizing and selecting actions.

Recommendations

Recommendations below are organized using the Zero Waste Hierarchy and themes that arose in the conversations. The workshops were designed to further discussion of the higher rungs of the hierarchy, recognizing that improved recycling and composting, while necessary, will not be sufficient to achieve a circular economy nor zero waste.

1. Rethink and Redesign

The first level of the Zero Waste Hierarchy is to rethink and redesign the systems that create waste in the first place. This is the level where the most effort should be spent for the greatest effect for carbon and ecological footprint reduction and community impact. Given this systems change level is where the Province has

significantly more influence than local and Indigenous communities, it is not a surprise that there were many suggestions at this level.

Culture Shift -Education / Behaviour Change / Technical Assistance

There will need to be a shift in culture to move towards meeting global needs within finite resources. A culture based on "Enough" and what brings joy that celebrates reuse, refuses unnecessary purchases, uses what exists and minimizes impacts will redefine what is a quality life rather than being based on consumption and perceived convenience. People will need to understand the principles to allow them to think differently about material use. This can start by incorporating Zero Waste and the Circular Economy concepts into our school curriculum, research agendas and post-secondary education. Community-based programs will be needed and will foster prosocial behaviour change (recognizing that education alone will not change our behaviour). For First Nation communities and also others, the role of elders can be highlighted given their instrumental role in driving change. Youth are also keen supporters. Celebrations such as Earth Day should be used to educate the population, elevate the awareness and urgency of issues, and promote specific behaviour and system changes.

Provincial communications programs are needed starting with developing and using tools that can be shared like the Metro Vancouver campaigns (Think Thrice, Make Memories, etc.). Work should be done, perhaps in partnership with IZWTAG, to develop and share tools designed for First Nation communities (like the IZWTAG What Goes Where poster and the onsite Circuit Rider program). The Province should provide an information hub for assistance with standardized signs, workshops, education materials, support and tools for communications within communities and education on prevention of wasting of food. It should also provide Zero Waste business tools and coaching - from procurement through to recycling and composting. With funding from producers, it should support awareness of what can be redesigned, reused, repaired and recycled as well as ideas for how to recycle and what can be done to make it more effective.

Product Design/Redesign

Systems and supports to drive product redesign are key. Fostering a comprehensive understanding of the full product life cycle is needed to encourage design for longevity and eventual recycling. This can be done through research, advocating to integrate life cycle factors into patent and other policy, and supporting innovation for product design change (e.g. Angels for Climate Solutions). Research agendas and education should focus on redesign of systems and products while fostering knowledge sharing between academia and practitioners can accelerate changes. The power of EPR needs to be harnessed to improve product redesign and possibly eliminate some items from the market. Plastics, in particular, need a focus on reducing use, reducing toxicity and encouraging replacement with sounder alternatives. For plastics still used, ensuring they can be and are recycled is key. Senior levels of government should actively address

optimizing EPR effectiveness as well with the use of clear targets and consequences for not meeting them as well as developing systems to encourage programs to connect with product designers. There should be a system for identifying common areas of concern that block Circular Economy actions (for example, plastic produce stickers contaminating organics streams). Overall, there should be systems to phase out problematic materials and items as well as length of life guarantees for certain products.

Policy

There were many suggestions that would fall under the policy heading, leading with reforming the Environmental Management Act and Recycling Regulation. Essentially there should be a scan to review why we have our present linear extractive model and what is blocking the change to a Circular Economy/Zero Waste model. This would result in a list of policies that need to change and/or be created. The provincial government should overcome legislative and legal barriers that currently exist, ensure the incentives and policies are aligned with a Circular Economy/Zero Waste vision (for example, to reconsider subsidies to use virgin materials), and set robust targets that are backed by policies and programs with measurement and monitoring to determine progress towards targets. Product redesign should be promoted through procurement, EPR, material bans and other policies. A clear Circular Economy vision with policies should create positive market pressure for BC businesses to change and thrive while holding corporations to account for their material use.

The Province should require Zero Waste plans for events and organizations receiving provincial permits or funds as a way to drive change.

Local governments wished to be empowered to enact bylaws based on environmental and social goals but also to be supported by enacting province-wide policies when suitable to create harmonized policy and save each local government from having to enact their own. Single use item reduction legislation, further discussed in the Reuse section, is an example. Creating a policy database to help communities bring in their own policies based on templates from other local governments in BC would also be helpful where a provincial policy is not yet viable or suitable.

The Circular Economy Strategy needs to become embedded in all related ministries' policy so that it is driving change in economic development, resource extraction and use, and environmental impacts.

Shift in the Economic Model

We will need to shift the economic model so it aligns with and mimics nature and also considers the carrying capacity of biosphere. This will start with a review of how we extract resources from nature to ensure that the full costs are paid by the industry and not externalized and passed to citizens or the environment. A shift from subsidies and supports of extracting virgin resources to subsidizing

recirculation of materials will be needed. The previous system of producers putting materials and products into the marketplace with no consideration of the broader impacts will need to change to one where the full impacts are the responsibility of the producers. Regulations should restrict the release of harmful products and materials before they are released or have requirements for durability, repairability, recyclability and recycled content. There needs to be a shift to having the costs of materials more accurately reflect the true total costs (including environmental costs) to correct the system that currently encourages replacement of products and single use items rather than use of labour to keep materials in circulation.

New business models will be needed and the Province can assist in their development and promotion. One example is a product-as-a-service model where the owner is invested in maintenance of the item they are putting on the market. There should be systems (including tax exemptions) to encourage, incentivize and educate on preferred types of containers and packaging as well as supporting refill business models over single use packaging. Industrial projects should be required to develop and implement Zero Waste plans as part of the project development. For example, Liquified Natural Gas projects should be required to establish circularity plans for pallets, rig mats, slash piles and other discards. The Industrial/Commercial/Institutional sector should also be required to have and implement Zero Waste plans.

As there is great potential for economic development through a Circular Economy, there should be support for provincial and local economic development initiatives based on Zero Waste and the Circular Economy principles.

Sharing Economy

Developing a sharing economy reduces the need to manufacture and purchase as many items while also reducing the amount of space needed to store those items. It can also foster a stronger social fabric and increased resilience in the face of challenges. A need for supports for tool lending libraries (including for agriculture), swapping centres, sharing systems (both online and in community) and related infrastructure was identified. Sharing economy elements should be incorporated into ecodepots with resources to create community hubs.

Planning at the Community Level

Planning at all levels of government including the community level will be needed. The Province should encourage and support development of Zero Waste/Circular Economy plans for all communities. This effort should include a system to share best practices, template bylaws and showcase initiatives at the community level. For implementers, there should be peer-to-peer learning groups. The Province should create a site with new tools, facilitate piloting of new strategies and collect and share open data. Local governments need to be empowered to make their own bylaws for Zero Waste/Circular Economy and environmental protection purposes. There is a need for strong urban containment boundaries to protect

farmland, forests and nature from ongoing sprawl with a local approving officer. Planning should also look at how to ensure adequate space to scale up Circular Economy/Zero Waste initiatives and rezoning of land to allow for Circular Economy/Zero Waste uses. There is a need to support partnerships between elected officials and staff to create sound community plans. The Province can also support land and infrastructure access in communities.

Funding

Funding is another foundational way for government to support change. It was suggested that the Province fund creative ideas to support Circular Economy/Zero Waste broadly, including better product and system design, and encourage businesses to adopt this model (such as expanding the Provincial funding for reducing plastics or the Cowichan Circular Economy Accelerator Program). There is the need for both capital and planning funding at the local level so local governments can design their own solutions. Economic development funding can fund Circular Economy businesses and municipal supports. There is the need to invest in infrastructure, add capacity to pilot and scale opportunities, examine options to repurpose industrial non-virgin materials, and unlock end use markets. There is a need to access Public-Private Partnership and Private Participation in Infrastructure resources to support a Circular Economy transition. Providing grant programs for creative upstream solutions, upcycling, education etc. across sectors (small and medium businesses, local government, non-governmental organizations) was also suggested. Funding will also be required to support the actions developed in the Circular Economy Strategy. The Province should work with local governments and First Nation communities to determine how to fund additional work on systems change, reduction and reuse at the community level. Circular Economy initiatives should be funded partly by adding a provincial hauling or disposal levy for all garbage.

Infrastructure

The Province (along with local government partners) can also work to ensure there is adequate land and infrastructure to support sharing, reverse logistics and hubs for the reuse of goods.

Partnerships and Collaboration

It will take collective action to move to a Circular Economy. The Province can help to build networks between communities to share resources (such as agreements with neighbouring communities on services among First Nations, municipalities and regional districts). Food security and resilience should be addressed by partnering with Indigenous Services Canada for First Nations as well as through broader coalitions. Non-governmental organizations, non-profits, social enterprises, B-Corps and others should be incorporated into the Strategy development given their ongoing role filling in critical gaps and spearheading innovation.

Collaboration regionally will be important to develop place-based systems. The Province should support a decentralized approach over blanket solutions where problem areas and opportunities in specific regions are better addressed locally. Along with coordination across regions, there should be an equitable system for distributing grants, funds and supports across the province. Using a bioregional approach to define regions should be considered where relevant.

Collaboration is also needed within the provincial government across ministries and with the federal government, who should be encouraged to develop its own Circular Economy/Zero Waste strategy and support aspects of the Strategy as each level of government has its own tools and sphere of influence.

Partnerships should also extend across Canada and with other nations and Circular Economy/Zero Waste aspects should be factored into trade agreements. With a global marketplace, having a growing market seeking better products and systems will advance change more quickly.

Two specific areas were mentioned for actions under Rethink and Redesign:

Food

This topic generated recommendations to support food innovation, prevention of wasting of food, food security, equitable food systems (especially in rural areas) and industry practice change beyond the status quo to reduce wasting across the supply chain. It was felt that there was significant scope for action in this area and that BC could be a leader.

Built Environment Materials

Opportunities to manage resources more efficiently in the built environment were underscored. The work to understand the embodied carbon in buildings should be enhanced and factored into green building policies, support for retrofits, support for deconstruction systems, a push for design for disassembly, creation of a parts bank and support of resource efficient building practices including modular design, choice of building materials, etc. It was felt that deconstruction bylaws should be supported to optimize recovery and reuse of salvage materials. There was also support for priority for people displaced from demolitions and deconstruction in the new buildings and the ability to use local resources for building.

2. Reduce

Many of the actions for reduction will stem from policy, communications and infrastructure directions noted above in Rethink and Redesign; however legislating to reduce or eliminate single use items was also discussed at length. The Province should roll out new regulations for single use items with fees, and include education that the consumers were already paying for the single use item in the costs of products. It is also important to note that local governments are paying for

expensive streetscape non-virgin material collection systems with minimal to no financial incentive from EPR programs. This effort is essentially a subsidy for businesses using single use items instead of reusable items. Policies to reduce and eliminate single use items can shift this responsibility back and impact procurement practices. The Province should also support businesses to allow customers to purchase packaging-free.

There was also scope identified to reduce wasting of food through fostering community gardens, food preservation, eating in season and focusing on retail environments. A robust Provincial program would help to improve food literacy to reduce wasting and support a resilient and equitable food system.

Procurement

Procurement offers a pivotal action where governments can optimize sustainable purchasing power to shift markets and behaviours. Purchasing practices should factor in not just value for money but also social and environmental aspects. The amount of money that flows through governments and associated institutions (such as utilities, education facilities, healthcare facilities, etc.) can powerfully influence markets. Thoughtful procurement and consumption are critical at provincial and local levels, and should build on the BC Social Procurement Initiative to incorporate Zero Waste and circularity to support innovation in these areas. In municipal procurement, there should be encouragement to add points for leading practices within tenders and to promote good actors (not merely avoid the bad). Conducting the research needed to evaluate different options, making it publicly available and encouraging others to adopt these practices will be helpful roles of the Province. There should be a priority on life cycle analysis and lower GHG impacts from product choices and a focus on durable goods and the ability to repair, replace parts, and disassemble an item. The Province can help to removing road blocks that prevent the addition of incentives for good actions, preferences for local jobs and suppliers and support overcoming barriers in trade agreements. There can also be support for new First Nations initiatives such as working with Indigenous Services Canada to support food trade between nations and others.

3. Reuse

For durable goods, there was a focus on strengthening the shift to reuse, repair and sharing products. This should include actions to encourage/support reuse and sharing within and between communities. There should be support for reuse stores or a reuse /repair mall model as well as requirements, such as in Spain, where a certain amount of goods must be sold in bulk for some store types. There should be scope for municipal finance systems to promote reuse so they can incentivize good actors. Reuse initiatives should also incorporate inclusive employment and equitable jobs programs. There should also be support for material reuse beyond brick and mortar efforts (e.g. buy nothing groups, institutional and municipal material exchange programs). The Strategy should incorporate ways to add materials to capture, upcycle and remanufacture. The Province should require a

much higher degree of reuse from the packaging EPR programs and should look at using the existing collection infrastructure to collect reusables and refillables for redistribution back to the producers as well. An analysis and actions to overcome regulatory hurdles such as possible liability, Work Safe BC rules and other issues that prevent the ability to salvage and/or reuse items should be addressed.

The Province should support Right to Repair legislation (with specific mention of electronics) and formalize repair systems. The requirements should include access to repair manuals, spare parts and warranty requirements to promote durability and ongoing usage; standardizing products where relevant (e.g. chargers) and adjusting standards for product life expectancy. There needs to be a shift from proprietary software and product design. A repairability index could be developed like in France. The Province (and Federal governments) should develop systems for parts such as requiring EPR programs to collect and distribute spare parts, ensure ongoing access to new parts, or require open-source patterns for parts to be made locally. There should be funding and support for community depots for reuse, repair and recycling and for ways to fund the required staff (such as through EPR programs and others). There should also be support for repair systems and programs through repair cafes (for items including bikes, lights, electronics), and by partnering with local governments, non-governmental organizations and businesses.

The reuse of fabric was highlighted as an opportunity with the shift in social acceptance of second hand and thrift purchases.

Food rescue also was noted as a major opportunity with continued momentum. Province-wide systems for recovery of surplus food and sharing systems (such as food sheds, community fridges, Food Mesh pilot, etc.) should be funded for program implementation and information sharing. Rescuing food adds visibility to where our food system is inefficient and should be improved as we work towards the longer term goal of a more efficient, equitable food system with less overall surplus.

4. Recycle/Compost

There were many suggestions for improving recycling and composting with a significant amount focused on EPR. There were calls for producers to be responsible for all products on the market. Gaps to prioritize include starting new programs for construction and demolition products (built environment materials), large items such as furniture, textiles, bicycles, fishing nets, cigarette butts, automotives, and other marine plastics and debris, and. Adding packaging and paper from the Industrial, Commercial and Institutional (ICI) sector to EPR regulations should be expedited to support recycling efforts, particularly in remote and rural areas of the province .

Accessibility to EPR services was seen as a priority. It was felt that programs should provide full coverage across BC for all communities. The Province should

create a crown corporation or system to coordinate service to all communities and consider regional consolidation hubs to minimize storage requirements at collection sites. Large items should be picked up by EPR programs (starting with mattresses). There was a call to expand the First Nation Recycling Initiative so it is easily available to all First Nation communities and to ensure programs fund more ecodepots in First Nation communities. In addition to services within communities, programs should also be required to consider accessibility for all community members (including elders, seniors and those with mobility challenges). Additional methods of collection such as Return it express, return to retail and Zero Waste centres should be strengthened. One of the current challenges to address is that EPR programs are not paying for their share of local services (staff, space, storage time, equipment and supplies), particularly in smaller and more remote communities, and taxpayers are inadvertently subsidizing these EPR programs.

Other suggestions were to require programs to move beyond recycling with robust systems for reuse, parts and repair. The Province should increase deposits or add them to more products when collection rates remain low despite strong accessibility. There needs to be actions to overcome barriers for collection of soft plastics, polystyrene, textiles. Finally, stewardship regulations should be more proactive with a strategy to cover all items coming into the marketplace and system to encourage reuse, repair, recycling and limiting disposal.

To drive demand for recycled materials, where safe, there should be recycled content requirements.

Eco depots, Zero Waste stations and demonstration hubs were supported. The Province should fund infrastructure to support recycling and composting as well as to incubate Zero Waste entrepreneurs. The Province should also mandate the use of clear bags for garbage and require source separation for ICI as well as other sectors. There was also support for increasing the capacity of IZWTAG to support planning, sharing knowledge, training and building ecodepots.

Provincial tools should be developed for sectors such as multi-family, civic sites, schools and green events. Beyond municipal solid waste, it was recommended that the Province should also look at agricultural and industrial waste management.

Material Specific

There was a call to create a non-virgin wood reuse and recycling system by mapping out existing and needed infrastructure and implementing a plan that utilizes and builds on the existing skills and infrastructure in rural communities.

For compost, the goal should be to ensure high quality Class A compost is produced and to optimize the process (e.g. contained windrows that regulate temperature and humidity for quicker turnaround and higher quality of end compost). Systems should be implemented to ensure organics, including food scraps, can be composted in all communities from all generators. There was support for harvesting thermal energy from the compost process to heat

greenhouses and home biodigesters/solariums. Education and funding for composting were seen as essential.

5. Material Recovery

Material recovery was seen as an opportunity after recycling where the Province should require and help to fund recovery stations to sort and separate items further before being disposed. Advanced recovery facilities for post-consumer sort should catch materials to repair, resell or salvage for use by contractors or artists.

There is an ongoing need for community clean ups for litter and illegal dumping which should be supported by the Province with items such as communications and data tracking systems (similar to the brand audits done be other groups) so the data should be used to alter policy.

In addition, the Province should support and enhance the infrastructure that was created in response to shoreline clean ups and continue to address marine debris (cleanups, prevention, cost recovery, transition to industrial product stewardship and overall accountability).

6. Residuals Management

For residuals management, the Province should aim to minimize the amount of unsorted non-virgin materials (e.g. garbage) going to landfills and to continue to support regional districts improving the disposal system to lower environmental impact and to provide diversion options at the facilities.

The Province should develop systems for overcoming challenges related to garbage flow leakage and trade agreements to ensure garbage is well handled.

With increasing frequency of disasters anticipated through climate change, disaster debris management plans should be developed provincially with a focus on how to optimize reuse and minimize wasting.

7. Unacceptable

It was seen as important that the Province not support incineration and other forms of burning or destroying materials. The Province should develop a policy against the use of garbage incineration (also called waste to energy, pyrolysis, gasification, plasmification and chemical recycling to fuel, including burning various non-virgin materials in cement kilns) based on the existing science and data highlighting the concerns for environmental health, human health, financial costs; the wasting of embodied energy; and opportunity costs. Having a clear policy showing what is acceptable or not would reduce the burden on communities and address concerns over lobbying and greenwashing. It was also felt that there should be either a federal or provincial watchdog to check greenwashing claims and ensure the lobbying system did not disadvantage communities or environmental groups over industry.

Metrics

There should be a robust system for tracking data related to the Circular Economy, with metrics to be determined using examples from jurisdictions further ahead of BC as well as specific to the Strategy. For the material and product-related aspects, the Province should assist with gathering and sharing data on source-separated and unsorted non-virgin material flows, understanding how much these materials are costing communities and society, and GHG and other impacts. Specific to the GHG and environmental analysis, consumption-based emissions inventories and ecological footprint data should be tracked to convey the greater impacts of the goods and services we consume that have impacts not captured within our territorial boundaries (i.e. beyond scope 1 and 2). Having accurate, transparent data on all garbage and virgin and non-virgin material flows would allow for a view regionally, bioregionally and provincially to then feed back into plans for the Circular Economy. Composition audits of non-virgin materials (garbage, recycling and organics streams) should be coordinated provincially and funded by EPR programs and local governments to provide a standard set of detailed analyses that can be shared publicly, distributed across the province and used to drive policy change. Other metrics should include number and quality of jobs and measures of circularity and resilience.