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July 30, 2024

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Circular Economy Opportunities Report

Dear Jeffery and Nicholas,

Thank you for the opportunity to work with Town of The Blue Mountains to develop a Circular Economy Opportunities report, and a Local Waste Planning and Implementation Guide.

To inform development of the report and guide, we conducted eighteen information interviews with community members, delivered a community engagement workshop, made a presentation to the first annual Sustainability Summit, and conducted extensive research into circular economy initiatives in other Canadian communities.

We have thoroughly enjoyed working with the Town on this important project. We look forward to working with you in the future.

Sincerely,

Mary Jean O'Donnell

President

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Community Context

The Town of The Blue Mountains is one of nine (9) lower-tier municipalities with the County of Grey. The Blue Mountains is home to over 9,400 permanent residents and an additional 6,000+ seasonal and part-time residents. As an internationally recognized tourism destination, the community welcomes over 2.5 million visitors annually. Located along the ridged landscape of the Niagara Escarpment and on the shores of Georgian Bay, the Town of The Blue Mountains is composed of communities that are built on a foundation of agriculture, processing, manufacturing, and recreation. According to the Town's Economic Development Strategy, the Town's top industries by employment were accommodation and food services, retail trade, and arts, entertainment, and recreation¹.



Report Context



The Town of The Blue Mountains has committed to a bold plan to advance sustainability throughout its operations and in the wider community. One such commitment, as outlined in The Blue Mountains Future Story, is to expand and implement the principles of the circular economy within the community.

Big Move:

Grow an Innovative and Thriving Community

In order for a community to be truly sustainable, it has to provide a great quality of life and opportunities for residents of all kinds. The Blue Mountains will provide opportunities for residents to meet their needs and grow an economy that reflects innovation and a commitment to a bright future.

Bold Action 14

Develop a Circular Economy Recommendations Report and expand circular economy programming.

¹ https://www.thebluemountains.ca/business-economy/economic-development

The Circular Economy

The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting.

The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.

The Circular Economy is based on three principles².

- 1) Eliminating waste and pollution: this means that we treat waste as a design flaw. In the circular model, materials re-enter the economy at the end of their useful life.
- **2)** Circulating products and materials: refers to keeping durable/technical items in circulation for as long as possible through repair and refurbishment.
- **3)** Regenerating nature: means shifting away from extraction to regeneration, allowing nature to rebuild soils by returning biological materials to the earth.

Recycle Design

Natural Resources Take Make Dispose

WASTE WASTE WASTE

WASTE WASTE

Consumer education and awareness will enable produce in respectable produce in received and the higher resource productively, invovation and economic growth

Consumer Use Distribute

3

² https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

³ https://media.fcm.ca/documents/programs/gmf/a-guide-to-catalyzing-a-circular-economy-in-your-community_vy24x4.pdf

Circular Economy Concepts

Table 1 outlines several examples of the circular economy in action. The concepts outlined in Table 1 reflect many features of existing initiatives that are underway in the Town. Additional details on specific programs are presented in the Community Engagement Results Section of this report.

Table 1 Circular Economy Concepts



Waste Reduction & Recycling Programs. These programs seek to eliminate waste altogether but also include recycling – where products are transformed into basic materials and reprocessed into new materials. Recycling should be considered a last resort⁴.



Sharing, Repair & Reuse. This is where products are either used by multiple users or where faulty components or products can be returned to a usable state to fulfill their intended use, or a product or component is used repeatedly without significant modification⁵.



Community Collaboration & Innovation. Collaboration in transitioning to a circular economy is paramount. Innovation happens when businesses, governments, community groups and change-makers work together⁶.



Food Rescue. The action of preventing good surplus food from being wasted by collecting it and redistributing it to feed people in need⁷. This may also mean that by-products or food that is slightly damaged may be utilized in other ways.



Closed Loop Systems. This is where the reprocessing of materials can be done indefinitely without degrading the material's useful properties⁸.



Local and Sustainable Sourcing. Integrates specifications, requirements and criteria into the purchasing process that protect the environment and society as a whole⁹. For example, purchasing third-party certified products or buying from local, small businesses.

⁴ Circular Concepts Defined: https://circularinnovation.ca/circular-economy/

⁵ IBID

 $^{^6\} https://media.fcm.ca/documents/programs/gmf/a-guide-to-catalyzing-a-circular-economy-in-your-community_vy24x4.pdf$

⁷ Definition taken from: https://www.secondharvest.ca/our-work/food-rescue

⁸ https://www.circulareconomyasia.org/closed-loop/

⁹ Definition taken from: https://ecovadis.com/glossary/sustainable-procurement/

Circular Economy Benefits¹⁰

- Research shows that the circular economy offers a \$4.5 trillion economic opportunity by reducing waste, stimulating innovation, and creating employment. This is a huge **economic boost**. For example, reducing plastic in waterways will be an economic boost to the tourism and fishing industries.
- Circular Economy has the potential to **create a net increase of 6 million jobs.** As well, the circular economy may **improve working conditions for the** ~15 million people who work as "waste pickers" across the globe.
- The circular economy makes better use of natural resources like forests, soil, water, air, metals, and minerals. This supports the three principles: eliminate waste, re-circulate products and focus on the regeneration of nature.
- Approximately 45% of greenhouse gas emissions come from product use, manufacturing, and food production. Circular strategies have the potential to reduce the use of resources and cut emissions by ~39%.

For example:

- o A reduction in the need for virgin plastic also reduces the consumption of fossil fuels.
- o Circular models reduce food loss and food waste which is key in reducing emissions.
- Protect human health and biodiversity. One of the most direct impacts of shifting to a
 circular model is changing how we deal with products at the end of life. By reducing waste, we
 reduce pollution and habitat loss.

According to the Ellen MacArthur Foundation, circular economy principles can tackle root causes of biodiversity loss by eliminating waste and pollution. For example, eliminating unnecessary plastics or re-designing them to have value post-use, means they will circulate in the economy rather than pollute the environment. Circulating products for longer also reduces the demand for natural resources which leaves room for biodiversity. Finally, focusing on regenerating nature helps to actively rebuild biodiversity¹¹.



¹⁰ https://www.wri.org/insights/5-opportunities-circular-economy

¹¹ Ellen MacArthur Foundation, *The Nature Imperative: How the circular economy tackles biodiversity* (2021). https://rcbc.ca/wpcontent/uploads/2022/08/EMF-The-Nature-Imperative-How-the-circular-economy-tackles-biodiversity-loss-2021.pdf

Community Engagement

MJ Waste Solutions conducted an extensive community engagement process to inform the opportunities outlined in this report.

Research into existing municipal best practices was another key element of the project, a summary of the work is presented in **Appendix A – Municipal Circular Economy Best Practices.**

Community engagement included information interviews with non-profit groups, businesses, and public sector organizations in the Town. A Circular Economy workshop

18 5

interviews conducted

16



workshop attendees

was held on March 5th, 2024. Sixteen participants attended. **Appendix B** presents a detailed report on "What We Heard" during the workshop.

The section below presents a summary of key outcomes.

Information Interviews

Eighteen organizations participated in 30-minute information interviews. Interviewees were comprised of thirteen (13) business operators and five (5) community groups / non-profit organizations. A list of organizations that participated in the interviews is presented in **Appendix C**. The purpose of the interviews was to gain community insights into the current state of waste management in the Town, and to better understand how the community will continue progress toward a circular economy.

The interview objectives were:

- Understand what businesses / organizations are currently doing to embed circularity into their operations.
- Learn about challenges in the IC&I (Industrial, Commercial, and Institutional) sector related to managing solid waste.
- Gain insights on how the Town may support the community's existing circular efforts.
- Identify next steps and priorities for moving the circular economy agenda forward in the community.

The interview questions are presented in **Appendix D**.

Community Engagement Results

The community engagement results are summarized and organized into four (4) themes:

- 1. Existing circular economy / waste reduction initiatives.
- 2. Primary sources of waste.
- 3. Waste management challenges.
- 4. Circular opportunities.

1. Existing Circular Economy & Waste Reduction Initiatives

The initiatives outlined in Table 2 were revealed during the information interviews and the workshop. It is evident from the list of examples that community members in the Town are well-practiced in the principles of circular economy. The already engaged community will be a great benefit as the Town formalizes its strategy. Additionally, many of the initiatives have the potential to be scaled for wider implementation.

Of note, all the organizations who shared the examples presented in Table 2 were already participating in various recycling programs (whether the Town's curbside service or with a private hauler). Most of them were also collecting and diverting organic waste (food scraps and yard waste).

Table 2 Circular Economy Initiatives in the Town

Circular Initiative	Description
∞ <u>.</u>	 Repair Café operates in the Grace United Church basement. Volunteers repair small appliances and clothing. Some items are donated to Beaver Valley Outreach to be resold.
∞ <u>.</u>	 Library of Things operates in The Blue Mountains Public Library. The Library of Things lends IT equipment and tech toys to residents.
	 Beaver Valley Outreach (BVO) offers several services which align with the principles of circular economy. The BVO Treasure Shop accepts donated clothing, small housewares, and books to resell and support programming. BVO offers programs that address food insecurity while helping to reduce food waste (Fresh Food Baskets, Community Garden and Food Cubby).

Circular Initiative	Description						
Ţ	Onsite composting. Some local businesses that grow food or provide landscaping services compost onsite and use the compost to fertilize new growth.						
Ç∞	By-product reuse. Some foodservice businesses rescue imperfect food that is either added to prepared items or dehydrated and sold for use in prepared food. Some food by-products (e.g. coffee grounds) are donated to customers to be composted.						
دع	 Reusable / compostable dishware. One business operator hosts weekly dinners where patrons are required to bring their own reusable dishware to participate. Several food service providers have switched to "compostable" single-use containers where feasible. 						
کے	Paperless workflow. One business implemented a paperless workflow which has significantly reduced the amount of paper throughout the office and has contributed to operational efficiencies.						
	Local and sustainable procurement. Where possible, business operators are making efforts to buy products which are either made locally or are sustainable (e.g. third-party certified or made from organic materials).						
(2)	 Community collaboration. There are many examples of community members collaborating with one another to support circular endeavors. Some businesses donate surplus food and items such as gently used electronics, housewares, or furniture. One business donates some of its commercial space for reuse pop up shops. 						

2. Primary Sources of Waste

While the composition of waste of a given organization is dependent on the type of product or service offered, many organizations identified similar materials in their waste streams. Most interviewees indicated they were not tracking waste data; therefore, the waste materials listed below are based on interview results only. A comprehensive waste composition study would support verification of these observations and provide baseline data on specific waste streams.

The most common waste materials identified during the interviews were:

- Cardboard
- Non-recyclable packaging and styrofoam
- Food waste
- Pallets
- Visitor waste

Many interviewees also commented on the quantity of disposable coffee cups in the public space waste bins. This finding is based on observations only and should be verified through a waste composition study. See the Opportunities Section for more details.

3. Waste Management Challenges

Many of the waste management challenges characterized, aligned with what interviewees saw as their primary waste streams. Specifically, businesses identified supplier packaging as a significant challenge and commented about the lack of control over waste produced upstream. Many businesses talked about illegal dumping as a challenge and often found visitor waste in their waste receptacles. Single-use food-service packaging was referred to by several community members, single-use hot and cold beverage cups topped the list.

Other challenges that were identified during the interviews included:

- For some businesses, the cost of private waste management services is a barrier to adding waste diversion programs such as container recycling and compost collection.
- Some businesses also identified that the cost of purchasing more environmentally food-service packaging (e.g. compostable packaging) was cost-prohibitive.
- Contamination in public-space waste receptacles lead some community members to question whether public-space recycling programs were successful in diverting waste from landfill.

- Several community members felt that the Town's waste receptacles (both public-space bins and the curbside Industrial, Commercial & Institutional (IC&I) bins) could be improved. The issues identified: too small, not enough available, no lids, which leads to litter during windy conditions.
- A lack of knowledge about reuse or sharing opportunities leads to missed opportunities.

4. Circular Opportunities

In addition to leveraging the existing circular initiatives throughout the community, interview respondents had several suggestions on how the Town may support the circular economy. Most respondents saw a central role for the Town in facilitating increased collaboration among key stakeholders around the sharing economy and reuse. Other opportunities include:

- Creating a public education campaign to target different aspects of the circular economy including behaviour change programs to encourage waste reduction and reuse.
- o Expanding the municipal curbside IC&I organics program.
- o Increasing reusable packaging where possible whether from suppliers or local businesses.
- Bundling supplier contracts to create economies of scale to reduce costs.
- Hosting community reuse events.

Circular Economy Workshop Outcomes

A Circular Economy Workshop was held to provide an opportunity for a deeper dive into how the Town can work with stakeholders to advance circularity. While many of the findings and feedback are presented in the previous sections, a detailed "What We Heard" report is included in **Appendix B**.

Circular Economy Opportunities

Outlined in this section are several circular economy opportunities for the Town and its stakeholders to consider. Feedback gathered during the community engagement process, as well as best practices for developing a circular economy framework, form the basis for these opportunities. It is important to note that some opportunities are meant to be initiated and led by the Town. Other opportunities will be more relevant to the Town's stakeholders such the Business Improvement Associations (BIAs) and other community groups.

The opportunities are organized into five focus areas:

- Strategy Development & Policy Integration: suggests how to embed circular principles into
 existing Town policies and where to focus next steps in developing a circular economy strategy
 with key partners.
- **2. Data Collection:** outlines data considerations to define strategic priorities.
- **3.** Communications & Engagement: lists ways to leverage existing circular economy initiatives to increase uptake as well as ideas for public education and/or engagement campaigns to encourage specific behaviours.
- **4. Infrastructure Upgrades:** recommends potential upgrades to existing waste management infrastructure to help with and expand waste diversion efforts.
- **5. External Partnerships:** explores potential organizations the Town may partner with for funding or to scale up efforts throughout the region.

1. Strategy Development & Policy Integration

- a. Continue to engage stakeholders to build key relationships and encourage further momentum on the transition to a circular economy. Start by ensuring the Town's IC&I sector know what services are currently available to them.
- b. Use the opportunities listed in this report to form the basis for a plan to move forward. Create a steering committee or working group with the BIAs and community groups. Agree on short and medium-term goals and accountability for implementation. Refer to the resources listed in Appendix E such as the Green Municipal Fund's <u>Guide to Catalyzing a Circular Economy in</u>

<u>your Community</u> ¹² and the Federation of Canadian Municipalities (FCM) Circular Cities and Regions Peer to Peer Network¹³ for further guidance.

- c. Engage the Finance and IT Services Department to embed circularity into procurement policies. For example:
 - Consider mandatory requirements for post-consumer recycled content in materials such as copy paper, stationery, and printed materials such as business cards, town newsletter, waste resource guide.
 - ii. Require vendors to submit waste management plans, take-back or repair requirements or leasing/rental options.
 - iii. The Ellen MacArthur Foundation "Circular Economy Procurement Framework" identifies key intervention points that the Town's procurement process may consider.
- d. Link the Circular Economy Strategy and initiatives to municipal policies such as the Municipal Net Zero Emissions Buildings and Municipal Construction Waste and Deconstruction.
- e. Find synergies between the Green Economy Hub and Circular Economy to ensure these projects complement and support one another's goals and outcomes.

2. Data Collection

- a. Explore the opportunity to partner with the Blue Mountain Village Association (BMVA) and Blue Mountain Resort to conduct a comprehensive waste composition study of the entire community. This exercise will provide better insight into what is being disposed and examine the efficacy of existing waste diversion programs. A waste composition study will also inform greenhouse gas emissions calculations, as well as public education / behaviour change campaigns.
- b. Encourage small businesses to collect data on waste generation by promoting the Town's Waste Planning Implementation Guide.

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¹² https://media.fcm.ca/documents/programs/gmf/a-guide-to-catalyzing-a-circular-economy-in-your-community_vy24x4.pdf

¹³ https://greenmunicipalfund.ca/resources/circular-cities-regions-initiative

¹⁴ https://www.ellenmacarthurfoundation.org/circular-economy-procurement-framework

c. Explore conducting a materials flow analysis (MFA)¹⁵ to quantify how materials and energy are being used, reused, and lost throughout a given system. This exercise could be initiated by both the Town and large waste generators. The MFA may analysis of goods and services purchased, energy and water consumption. This information may provide the Town and large generators with a more fulsome picture of opportunities to address linear material flows and minimize waste.

3. Communications & Engagement

- a. Work with the newly established Circular Economy Steering Committee to create additional task forces or working groups to lead different focus areas of circular economy priorities. For example, the Town's BIAs could lead the development of a communications campaign directed at visitors to promote pro-circular behaviours such as "bring your own cup". (See Opportunity 3d for more information).
- b. Explore opportunities to facilitate greater participation in the sharing economy. Consider joining the Circular Innovation Council's <u>Sharing Platform</u>. Encourage community groups (e.g. Beaver Valley Outreach, Repair Café, the Library of Things) to promote existing initiatives and develop new sharing opportunities through the platform.
- c. Consider providing community space for reuse events. Events may include pop-up reuse shops, expanded space for the Repair Café or additional storage for the Library of Things. Engage with relevant stakeholders to better understand needs.
- d. Support BIAs and other relevant stakeholders to develop a communications campaign directed at visitors to promote the Town's commitment to circular economy and encourage proper waste management behaviour such as correct sorting of waste, using reusable coffee cups and taking household waste to the landfill or back to their residence. This campaign may be part of the work to standardize public-space waste receptacles and signage (see Section 4).
- e. Create a Circular Economy web page on the Town's website to keep stakeholders up-to-date on progress being made on circular initiatives and to showcase existing programs.

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¹⁵ https://environment-review.yale.edu/leveraging-material-flows-accelerate-resource-efficiency-current-status-challenges-opportunities

4. Infrastructure Upgrades

- a. Engage with commercial curbside customers to explain how to request larger recycling totes (360 litres) and organics totes (240 litres). During the interviews, it was found that several business operators were unsure of the process to get larger receptacles.
- b. Consider expanding the organics program to eligible commercial customers who are not yet taking part. Encourage large generators to include organics diversion as part of their private waste hauling services.
- c. Consider upgrading Town collection containers, when budget allows, to be more secure to minimize waste being dispersed in windy conditions.
- d. Explore opportunities to standardize public space waste receptacles and signage throughout the Town. Partner with Blue Mountain Resort and the Blue Mountain Village Association to agree on accountability and look and feel. Include references to this initiative in the communications campaign (as mentioned in 3d) to reflect new signage. See Appendix F for photos.
- e. Explore a "partial user pay" model for the Town's IC&I waste hauling services.
- f. Encourage the BIAs and single-use cup waste generators to explore the development of a deposit return system (DRS) on single-use disposable cups. Findings from the waste composition analysis (see 2a) will help quantify single-use cups being disposed and create a business case for this type of initiative.

5. External Partnerships

- a. Collaborate with Grey County and other regional partners on circular and waste management initiatives, where feasible.
- b. Explore engaging with the Town's suppliers to find collaborative ways to reduce upstream packaging waste. The Town might consider partnering with the Blue Mountain Resort and Blue Mountain Village Association as well as other organizations with large spends to gain economies of scale. Ensure the Town's procurement team is involved as well as any teams involved in capital planning and asset management.

- c. Look for opportunities for additional support and networking from external organizations such as <u>Circular Cities and Regions Initiatives</u> or the <u>Green Municipal Fund</u>. Refer to Opportunity 3b to initiate participation in the sharing economy. Ensure stakeholders and regional partners are aware of these resources too.
- d. Explore the Regional Tourism Organization 7's (RTO7) work on advancing sustainable tourism initiatives. Look for opportunities to collaborate on shared goals related to circular economy.
- e. As Circular Economy focus areas are developed, consider exploring other partnerships to support efforts. As an example, if food rescue is identified as a priority, encourage food retailers to explore partnerships with organizations like Too Good to Go. If food-service packaging is a priority, explore opportunities to use reusable packaging solutions such as Friendlier.
- f. Provide inspiration to local businesses by showcasing initiatives undertaken in other communities. For example, the City of Toronto lists several circular projects led by businesses and community groups throughout the city. See https://www.toronto.ca/services-payments/recycling-organics-garbage/long-term-waste-strategy/working-toward-a-circular-economy/.

Appendix A - Municipal Circular Economy Best Practices

Banff, Alberta

N-Viro organic waste recycling process is a wastewater treatment plant with no net negative impact. The system harvests essential nutrients from organic waste and turns them into fertilizer.

Reuse-it Centre: where residents can drop off and pick up items for free.

Banff Food Rescue: picks up and receives food from grocery and retail stores that would normally be sent to landfill.

Bear Minimum: clothing swap and bag drop as well as soap refill station.

Banff Marathon is zero waste with a 100% diversion rate.

www.Banff.ca

https://recycle.ab.ca/wp-content/uploads/2020/11/Banff-Roadmap-FINAL.pdf

City of Guelph / Wellington County, Ontario

Our Food Future

"Accelerate a circular regional economic system inspired by nature's regenerative processes and traditional cultures that live in harmony with the earth".

2025 goals include: doubling current access to nutritious food to those who need it most, support at least fifty new circular businesses, generate significant value (50% increase in economic benefit) from food by-products.

Four focus areas: reduce food waste, increase food access and food security, drive circular collaborations, and affect systems-level change.

Accomplish goals through strategic interventions in eight areas:

- 1. Growing, production and land use
- 2. Processing and distribution
- 3. Buying, selling, and sharing
- 4. Business innovation
- 5. Waste reduction and recovery
- 6. Access and inclusion
- 7. Community and food culture
- 8. Enablers for system change such as policy and funding.

Sister initiative Circular Opportunity Innovation Launchpad (COIL) to support circular food businesses / non-profits. Received federal funding (FedDev Ontario). Resulted in significant food waste diversion and increased access to affordable food.

https://foodfuture.ca/home/about/our-story/

Squamish, British Columbia

Circular Economy Roadmap is a working document that outlines Squamish's approach. The roadmap proposes using a conceptual framework of seven elements of circularity that can be applied at different intervention levels.

Three core elements:

- 1. Prioritize regenerative resources.
- 2. Stretch the lifetime of the product.
- 3. Use waste as a product.

Four key drivers:

1. Investment, 2. Innovation, 3. Policy, 4. Collaboration.

They are exploring three themes to apply this framework:

1. Built Environment, 2. Circular Textiles, 3. Food/Organics.

Rationale for choosing focus areas:

Are they technically feasible?
Economically viable?
Impactful?
Environmentally sound?
Socially acceptable?

Scalable?

Aligned with goals and objectives, quick wins, resource availability.

This project is in the implementation stage.

https://squamish.ca/assets/panel-files-2021/11/Circular-Economy-Roadmap-F-v2.pdf

York Region, Ontario

SM4RT Living Plan (Integrated Waste Management Plan) has a vision "a world in which nothing goes to waste" and an objective to "inspire people across the region to embrace SM4RT living and advance circular economy".

SM4RT Living Plan is the guiding document driving the Circular Economy Roadmap. This document outlines the engagement efforts that York undertook to understand opportunities.

Examples of circularity in action include reusing old asphalt, diverting 112,000 tonnes.

New facility built to LEED Gold standards. Eighty-six (86)% of construction waste was diverted from landfill. Construction materials (37%) were sourced locally, 20% of materials with recycled content, low flow water, green roof.

Reuse and repair programming: 3 lendery locations, curbside giveaway days, repair cafes.

Food Gleaning Program: visitors can visit local farms after they've been harvested to gather remaining vegetables and fruits. Over 14 tonnes of produce were distributed to 2,638 people.

Focusing on five action areas: sustainable food systems, reuse and sharing, community capacity and connections, circular procurement, and asset management & built environment. Each area has two to four action items to support.

Supported the launch of the **Share and Repair Hub** in 2022.

https://www.york.ca/newsroom/campaigns-projects/circular-economy#:~:text=York%20Region%20has%20several%20resources,that%20support%20a%20circular%20economy.&text=York%20Region's%20Circular%20Economy%20Initiatives%20Fund%20(CEIF)%2C%20initiated%20in,funding%20to%20six%20successful%20recipients.

Region of Peel, Ontario

The Region of Peel roadmap outlines seventeen recommended actions to reach 75% diversion by 2034. The actions are organized by programs, policies, and processing capacity.

Programs

- Promote benefits of waste reduction and reuse
- Increase resource recovery in Peel's Agencies, Boards, Commissions and Departments and Business Improvement Areas
- Expand existing and implement new curbside and multi-residential resource recovery programs.
- Optimize Peel's Community Recycling Centres services to increase resource recovery.

Policies

- Advocate for extended producer responsibility.
- Update our approach to communications, education, outreach, and enforcement.
- Consider the adoption of volume-based user fee for garbage.
- Regularly update Peel's Waste Collection By-law and Design Standards and review, assess, and amend policies and programs.

Processing Capacity

- Construct an Anaerobic Digestion Facility to process Peel's Green Bin organic material.
- Develop Mixed Waste Processing capacity to recover additional resources.
- Update Peel's Infrastructure Plan to include Mixed Waste Processing.

Joined the Share and Repair Hub in 2024.

https://www.peelregion.ca/waste/pdf/roadmap-circular-economy.pdf

Whistler, British Columbia

Goals

- Reduce waste by 80% by volume and weight from 2019 levels by 2030.
- Generate <350kg per capita of waste by 2025.
- 95% reduction in waste sector GHG emissions by 2030 from 2007 levels.
- Zero Contamination.
- Divert 95% of organic waste by 2030.

Plan organized into four material and product categories:

- All materials and products.
- Built environment materials.
- Organics and food packaging.
- Consumer products and packaging materials.

Within each category, strategies and actions are organized by type: education, programs, infrastructure, advocacy, bylaw/regulatory.

Each strategy indicates which step of the Zero Waste Hierarchy it addresses.

Focus on education and outreach to Industrial, Commercial, and Institutional (IC&I) community as well as expansion of services and updating bylaws to reduce waste, reduce use of materials, waste management planning and deconstruction for built environment, prohibiting harmful materials.

https://www.whistler.ca/wp-content/uploads/2023/01/Zero-Waste-Action-Plan.pdf

Appendix B - What We Heard

Circular Economy Workshop

Workshop Details

March 5th, 2024 – 5:00pm to 7:00pm Town of Blue Mountains Council Chambers Presented by: TBM Sustainability & MJ Waste Solutions

Agenda

- 1. Project Context
- 2. Circular Economy 101
- 3. TBM Current State
- 4. Single Use Packaging Research Project
- 5. Choose Your Rs
- 6. Next Steps & Conclusion
- 7. Final Comments & Questions

The following topics were covered during the workshop:

- An overview of the Town's *Integrated Community Sustainability Plan "the Blue Mountain Future Story"* and other drivers for this work.
- Key definitions and concepts related to circular economy.
- A summary of the Town's waste diversion services, as well as opportunities and challenges that the Town is facing regarding delivery of waste diversion services.
- An overview of a University of Waterloo research project that is examining single-use foodservice packaging in the community.

At the end of the workshop, participants were encouraged to take part in an engagement exercise, "Choose Your R", during which, participants reflected on how they might embed the principles of circular economy into their operations.

Participant Feedback

At various points throughout the workshop, participants had the opportunity to provide feedback and input on the different agenda items. A summary of participant input and feedback is below.

Circular Economy 101 – What Does Circular Economy Mean to You?

- Participants touched on concepts related to circularity such as the sharing economy, repurposing items, repairing old equipment, closed loop systems and regenerative design.
- Workshop participants identified examples of circular initiatives that they were aware of in the Town and in other locations. For example:
 - Woodbloom is a business in Collingwood that grows organic mushrooms for the foodservice industry. They sell their compost to apple farmers. Flawed/imperfect mushrooms are dehydrated and sold to restaurants = Zero Waste.
 - o A closed loop irrigation system that uses grey water for lawn maintenance.
 - A tree rescue project that removes trees from development sites and returns them when the development project is complete.
 - The TBM Repair Café repairs small appliances and clothing to keep them in circulation longer. Repair Cafés are a global model, one of the key drivers is to advocate for "right to repair" legislation.
 - The Beaver Valley Outreach (BVO) Treasure Shop repurposes old clothing into shopping bags, and crafting supplies as well as ragbags.
 - The Town's *Dump Emporium* offers gently used items for sale for a nominal amount.
 The funds go back into the community.
 - Residents are encouraged to drop off deposit containers at the landfill, BVO collects the containers and cashes them in to support programming.
 - The Town's Library of Things contributes to environmental and social sustainability by providing items free of charge for use by the community.
 - The Blue Mountain Village Association reuses wood from the axe throwing operation as firewood in the fire pits in the Village.
- One participant inquired about whether the Town will consider investing in a waste-to-energy system such as a bio-digester. The Town commented that it was exploring opportunities related to waste-to-energy including sending some of its chipped wood waste to a composting facility.

The Town of The Blue Mountains – Current State

• The Town reviewed its waste management services for Industrial Commercial and Institutional (IC&I) customers and discussed some of the challenges related to the cost of the programs.

Comments and questions from the participants:

- Clarification was requested on type of styrofoam that is accepted for recycling at the landfill. The Town explained that clean rigid polystyrene packaging is the only type of acceptable styrofoam. Styrofoam cups, dishes, hot beverage lids, utensils, etc. are not accepted. The cost to run the program is ~\$6,000/year.
- Clarification was requested on how the landfill manages agricultural waste (e.g. bale wrap, etc.). The Town explained there were challenges with contamination which was making the products un-recyclable. The ag waste program is now managed by an individual who collects the materials directly from farms. That way the quality of the items can be better managed. TBM landfill cannot accept agricultural waste or commercial hazardous waste (e.g. empty pesticide jugs). The Clean Farms program provides options for safe disposal of pesticides and herbicides.
- One participant commented on seasonal agricultural workers using the Dump Emporium to buy items to send to their home country. The suggestion was made that perhaps these workers could receive a price break or perhaps they could have items at no charge, as they are an important part of the work force, and the community should support these individuals.
- One participant suggested that there is more be done to understand the different waste generators in the community and ensure that costs related to waste management are distributed equitably. For example, commercial operations that generate a lot of waste should bear the cost of managing their waste.
- Participants were interested in understanding what changes to services or costs might be
 expected in 2024. The Town clarified than no changes were planned in the short term. The
 Town is exploring opportunities to reduce costs where possible. One potential solution might
 be to partner with the County and other communities to create economies of scale and cost
 efficiencies.

- There was a lot of discussion on BVO's deposit container collection program. The program has
 expanded and has a kiosk built on the property which can hold 48 black bins for deposit
 containers. BVO has also extended its hours and runs 5 days per week.
- Some participants commented about having more collection locations and mentioned having one in Craigleith.
- It was requested that an Eblast be sent out to promote the program.
- BVO emphasized their need for more volunteers.

Single-Use Food-Service Packaging Study in the Town

Laura Eagan, a University of Waterloo student, provided a high-level overview of her research related to single-use food-service packaging and discussed the scope of her study including a public space waste audit. (See Appendix F for a summary of results).

- One participant asked if Northwinds Beach could be included in the waste audit. However, due to the project timeline, it was not possible to get data from the beaches.
- Another participant commented on construction waste being an issue, as litter from these sites spreads due to high winds.

Choose Your R Exercise – Summary of Outcomes

Participants were asked to think about the Rs (e.g. reduce, reuse, recycle, etc) and how they might implement these concepts into their operations to reduce / eliminate waste. The comments, suggestions and ideas are presented below.

- Create policy to include thoughts / rules / suggestions re: circular economy.
- Incentivize employees to come up with ideas, implement the ideas that are suggested.
- Consider donating equipment to the Repair Café.
- Volunteer at the Repair Café, the Community Garden or Beaver Valley Outreach.
- Work with youth to create a social enterprise for reuse/repair.
- Repurpose pallets as planters or use them to enable walking over phragmites on the beach.
- Find ways to use grey water and partial treatment for non-potable water.
- Clean Farms: agricultural waste recyclers.
- Expand access for collecting recyclables, move collection containers at the landfill for people to use when the landfill is closed.
- Communicate / Educate businesses, volunteers, staff, and residents on a regular basis about resources that are available.

- Look for opportunities to share equipment with other businesses.
- Reduce the amount of disposable takeaway containers, find alternatives that can be reused.
- Make use of apps to facilitate sharing throughout the community.
- Create a website that shares contact information for vendors that are creating / selling reusable products like beeswax covers for food containers.
- Create a "Pay Nothing" Facebook page.
- Reuse plastic bags, as many times as possible.
- Repurpose skids from construction sites.
- Promote re-use from construction / renovation projects.
- Re-use / donate leftover food from restaurants.
- Bring your own containers for restaurant take-out.
- Invest in building materials with longer life span (e.g. metal shingles / roof tiles, etc.).
- Used styrofoam forms for construction = better energy efficiency.
- Reuse wood chips on walking trails.
- Open the landfill for more hours / days.
- Facilitate more plant rescue programs.
- Donate gently used items to Habitat for Humanity.
- Encourage sharing among local food service providers (e.g. reusable containers or compostable single-use items such as utensils and napkins.
- Encourage the use of reusable service ware (e.g. plates, cups, utensils).
- Share equipment with other farmers so that higher end equipment can be purchased with less investment per farmer.
- Spread wheat straw on field after harvest to increase organic matter.
- Use storm water collection ponds for irrigation.
- Consume less stuff.

Final Comments & Questions

To wrap up the session, participants were asked to share any final comments or questions.

- One participant commented that high winds cause litter as blue boxes have open tops, which allows lightweight waste (e.g. plastic and paper) to blow out of them.
- One participant asked whether TBM will consider a cart tipper system where a mechanical device empties the carts.
- Another participant commented on reducing collection frequency due to bins not being full and that this practice is working in Collingwood.
- One participant reiterated the need to conduct a study of where waste is being generated in the community to inform how the town might reduce costs and collection frequency.

Feedback via Email Correspondence

 An email was received from Scoop2 (<u>www.scoop2.ca</u>) encouraging the purchase of Sutera Dog Waste Units (<u>https://www.sutera-inground.com/dog-waste-unit</u>) for parks and public spaces in the Town.

Appendix C - Organizations Interviewed

Business Operators

Adorn II

Birch & Benjamin

Blue Mountain Resort

Clarksburg Realty Group

Garden Holistics

Goldsmith's Farm Market & Bakery

Good Grief Coffee Roasters

Lilypad Spa

Mountain Goat Films

Pharmasave

Spa Scandinave

Sun Retreats Blue Mountains

Thornbury Bakery Cafe

Community Groups / Non-Profits

Beaver Valley Outreach

The Blue Mountains Community Church

The Blue Mountains Public Library (Library of Things)

The Blue Mountains Repair Café

The Blue Mountain Village Association

Appendix D – Interview Questions

- 1. Has your organization taken steps to minimize/reduce solid waste and/or promote circularity?
 - a. If yes, please explain in more detail.
- **2.** Does your organization take advantage of municipal services to manage your waste? For example: Recycling? Compost? Reuse programs?
- 3. Does your organization utilize private service providers to manage your waste?
 - a. If yes, which service provider(s)?
 - b. For which services?
- 4. Do you collect/track data related to solid waste management?
- **5.** What would you say are your primary sources of waste? Which materials do you throw away or recycle the most?
- **6.** What opportunities do you see in your organization and/or in the community to reduce waste and progress toward a more circular model (from take-make-waste to keeping products in circulation longer)? What do you think you could commit to?
- 7. Do you face challenges regarding solid waste management?
 - a. If yes, please explain in more detail.
- **8.** Would support from the Town of The Blue Mountains help with solid waste management/circular economy efforts?
 - a. If yes, please explain in more detail.
- 9. What information would be most helpful to you in a waste planning implementation guide?
- **10.** On a scale of 1 to 5, how likely would you consider participating in or implementing the following circular economy initiatives? (1 being highly unlikely to 5 being highly likely)
 - a. Sharing, repair, reuse, donation programs
 - b. Circular procurement (supplier engagement, contract bundling, local purchasing)
 - c. Food rescue programs
 - d. Closed-loop system (e.g. onsite composting for onsite fertilizer)
 - e. Reusable packaging
 - f. Community collaboration, networking

Appendix E – List of References / Further Reading

The Blue Mountains Future Story

www.tbmfuturestory.ca

Ellen MacArthur Foundation

https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

The Nature Imperative: How the circular economy tackles biodiversity (2021)

https://rcbc.ca/wp-content/uploads/2022/08/EMF-The-Nature-Imperative-How-the-circular-economy-tackles-biodiversity-loss-2021.pdf

https://www.ellenmacarthurfoundation.org/circular-economy-procurement-framework

Federation of Canadian Municipalities (FCM)

https://media.fcm.ca/documents/programs/gmf/a-guide-to-catalyzing-a-circular-economy-in-your-community_vy24x4.pdf

https://greenmunicipalfund.ca/resources/circular-cities-regions-initiative

Green Municipal Fund

Circular Concepts defined: https://circularinnovation.ca/circular-economy/

Food Rescue defined: https://www.secondharvest.ca/our-work/food-rescue

Closed Loop Systems defined: https://www.circulareconomyasia.org/closed-loop/

Local and Sustainable Sourcing defined: https://ecovadis.com/glossary/sustainable-procurement/

Circular Economy Benefits: https://www.wri.org/insights/5-opportunities-circular-economy

Eight Ways the Circular Economy will Transform How Business is Done

https://councilgreatlakesregion.org/8-ways-the-circular-economy-will-transform-how-business-is-done/

Material Flows Analysis: https://environment-review.yale.edu/leveraging-material-flows-accelerate-resource-efficiency-current-status-challenges-opportunities

Food Waste: Too Good to Go

Single Use Plastic Waste: Friendlier

Banff, Alberta

www.Banff.ca

https://recycle.ab.ca/wp-content/uploads/2020/11/Banff-Roadmap-FINAL.pdf

Our Food Future (Guelph)

https://foodfuture.ca/home/about/our-story/

Squamish, British Columbia

Circular Economy Roadmap: https://squamish.ca/assets/panel-files-2021/11/Circular-Economy-Roadmap-F-v2.pdf

Region of York, Ontario

Share and Repair Hub

https://www.york.ca/newsroom/campaigns-projects/circular-economy#:~:text=York%20Region%20has%20several%20resources,that%20support%20a%20circular%20economy.&text=York%20Region's%20Circular%20Economy%20Initiatives%20Fund%20(CEIF)%2C%20initiated%20in,funding%20to%20six%20successful%20recipients.

Region of Peel, Ontario

Circular Economy Roadmap: https://www.peelregion.ca/waste/pdf/roadmap-circular-economy.pdf

City of Toronto, Ontario

Businesses Supporting Circular Economy: https://www.toronto.ca/services-payments/recycling-organics-garbage/long-term-waste-strategy/working-toward-a-circular-economy/businesses-supporting-torontos-circular-economy/.

Whistler, British Columbia

Zero Waste Action Plan: https://www.whistler.ca/wp-content/uploads/2023/01/Zero-Waste-Action-Plan.pdf

Appendix F - Single-Use Packaging Study

Summary of the Public Space Waste Audit and Survey Results

A summary of the results and key challenges identified for single-use packaging in TBM based on the public space waste audit and survey to foodservice businesses is shown in Table 6. Of the key challenges summarized, targeting the waste and look-alike product concerns of paper and plant-fibre take-out containers may provide the greatest opportunity for waste diversion and reducing contamination in recycling and composting streams.

Table 3: Summary of the Public Space Waste Audit and Survey to Foodservice Businesses

Single-use Packaging and Item Product Category		Weight in Recycling	Weight in Waste	# of Businesses Using	Intended End of Life Pathway	Key Challenges
Beverage Packaging	Beverage Containers	11	1	12	*Recycling	
	Paper Cup	6	4	14	**Recycling	Contributing to public space waste
	Plastic Cup	2	1	9	Recycling	
Foodservice ware	Plastic Take-out Containers	0.04	0.1	6	*Recycling	
	Paper and Plant Fibre Take-out Containers	2	4	14	**Compost/ Recycling	Contributing to public space waste Potential for incorrect end of life and contamination
	Plastic Wrap	Residual Waste	Residual Waste	11	Waste	Contribute to wasteNo viable alternatives
	Paper Bags	Residual Waste	Residual Waste	15	**Compost	
Other	Compostable plastic	N/A	N/A	10	***Waste	 Contaminant in recycling Potential contaminant in industrial composting facility
Single-use Items		1	0.4	N/A	Compost/Waste	Alternatives available but waste items still being used

^{*}Depends on specific packaging materials and features, some products not recyclable

Key Findings

- Most of the local foodservice businesses are interested in reducing consumption and waste of single-use packaging in the near and medium term.
- The key barriers faced when shifting to more sustainable packaging is higher costs, difficulty sourcing, and lack of knowledge on alternatives.
- Limited interest in reuse systems and bylaws by local foodservice businesses.
- Interest in a business resources guide, community zero waste education and funding for zero waste projects.

^{**}Recycling vs composting depends on moisture barrier lining and the degree to which it is soiled

^{***} Unless product has been field tested in local industrial composting facility

Recommendations from the Single-Use Packaging (SUP) Study

TBM can reduce the consumption and waste of single-use packaging and ensure the transition from problematic single-use plastics does not cause other unintended consequences for the waste management systems through measures broken out into four categories: education, infrastructure, economic incentives, and municipal policies.

The key challenges identified through this research, and which recommended measures apply to the challenges are shown in Table 7. Education and infrastructure measures are recommended over the short-term while municipal policies and economic incentives may be used over the long-term along with additional forward thinking on enabling collaboration and reuse systems.

Table 4: Key Challenges and Recommendations

		Short	Long-term			
	Education		Infrastructure		Economic Incentives	Municipal Policies
Key Challenges	Business Resource Guide	Waste Wizard Updates	Receptacle Signage	Public Space Compost Bins	Funding for Zero Waste Projects	Reducing single-use packaging on city property and events
Recyclable or Compostable Products such as paper cups and take-out containers contributing to waste	х	х	Х	х	Х	
Look-alike products with potential for incorrect end of life	Х	Х	Х			Х
Compostable plastics a potential contaminant in organics and recycling stream	х	X				X
Single-use packaging and items with no diversion potential contributing to waste	Х	Х			Х	Х

Education Recommendations

- Quick Win Updating waste wizard to advise on compostable plastics, cup sleeves and wooden stir sticks. Monitor the situation with compostable plastics over the long-term.
- Develop a business resource guide indicating preferred single-use packaging for the region

Appendix G – Public Space Waste Bin Photos



Public Space bins in Thornbury



Beach waste and cigarette butt collection



Stand-alone garbage bin in Thornbury



Cigarette butt collection – close-up





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