

The Regional Municipality of York

Committee of the Whole
Environmental Services
May 5, 2022

Report of the Commissioner of Public Works

York Region's Circular Economy Roadmap

1. Recommendations

1. Council endorse York Region's Circular Economy Roadmap (Attachment 1)
2. Regional Clerk circulate this report and Attachment 1 to local municipal councils, the Ministry of Environment, Conservation and Parks and the Circular Cities and Regions Initiative

2. Summary

In 2020, York Region's Integrated Waste Management Master Plan the [SM4RT Living Plan](#) was updated to include an aspirational vision of "a world in which nothing goes to waste". A key objective of this plan was to encourage and inspire the community to advance the circular economy and to look for opportunities to further circularity through York Region's internal operations and service delivery. York Region's Circular Economy Roadmap (Attachment 1) has been developed to guide the Region in implementing the circular economy.

Key Points:

- Implementation of the circular economy supports the Region's Vision and each of the four Strategic Plan priority areas – economic vitality, healthy communities, sustainable environment and good government
- The circular economy is gaining interest amongst leaders and stakeholders in Canada and around the world as a strategy to reduce waste and our dependence on finite virgin materials
- Engagement to inform the development of this roadmap showed strong interest across Regional departments and community partners
- This Roadmap will foster collaboration across the Region and its communities to maximize impact and accelerate the circular economy

3. Background

A circular economy eliminates waste and pollution, and conserves resources. It is a shift from a throw-away to a circular mindset. This approach extends the lifecycle of goods, food and resources through better design and continuous reuse, so nothing goes to waste. In a circular economy, innovators will design more durable, reusable, repairable and recyclable products and consumers will access many alternatives to ownership such as renting, borrowing and sharing. In a municipal context, the Region's One Water philosophy looks for opportunities for water demand management, leak prevention, innovative reuse while ensuring environmental and health protection is well aligned with the circular economy.

In 2020, [Council approved an update](#) to York Region's Integrated Waste Management Master Plan (SM4RT Living Plan) with the visionary goal of "a world in which nothing goes to waste". This goal cannot be achieved alone as evidenced in the plan's objective to "encourage and inspire the community to advance the circular economy". York Region's Circular Economy Roadmap (the Roadmap) supports several implementation actions under that objective including supporting partnerships, examining alignment with internal operations and regional priorities, and researching, consulting and sharing information on the circular economy. This report outlines the process and recommendations in the Roadmap (Attachment 1) and next steps for advancing this leading work.

Governments across Canada are leveraging policies, programs and \$200 billion in annual spending power to advance a circular economy

Advancing a circular economy presents an opportunity to reduce greenhouse gas emissions by an [estimated 39%](#) through cleaner manufacturing, reduced materials, transportation and waste. According to the World Economic Forum, the circular economy translates to a [\\$4.5 trillion economic opportunity](#) globally by reducing supply chain risks and maximizing local and sustainable growth. Municipal governments are playing a strong role in supporting circular transitions through their policies and programs. According to the Circular Innovation Council, through procurement alone, [Canadian governments spend \\$200 billion annually, with 80% of it spent at the local government level](#). This represents an enormous opportunity for local governments to influence markets and support innovation while meeting waste reduction, climate change and asset management goals.

The circular economy is gaining momentum across Canada. As noted in Table 1 below, all levels of government, private sector and community organizations are implementing circular initiatives. York Region's commitment to advancing a circular economy demonstrates our leadership in sustainability in the municipal sector.

Table 1
Examples of Circular Economy Activities

Canadian Sector	Activities
Federal Government	Innovative policy, legislation and operational commitments to support circularity including: Canada-wide Strategy on Zero Plastic Waste , Greening Government Strategy that includes circular procurement; exploring right-to-repair legislation ; developing recycled content regulations ; federal climate plan actions such as the 2 billion trees initiative for reforestation, federal net-zero accountability act and carbon pricing
Provincial Government	Working with municipalities and producers on major changes in waste management to support circularity including: Resource Recovery and Circular Economy Act , Extended Producer Responsibility , Food and Organic Waste Policy Statement , Excess soils regulation
Municipal Governments	Using various policy and operational levers to support circular transition and driving collaboration: Circular Cities and Regions Initiative , City of Toronto circular procurement , Metro Vancouver construction demolition waste , City of Mississauga sustainable procurement , Our Food Future in Guelph/Wellington County ; Lake Simcoe Region Conservation Authority phosphorus offsetting policy
Commercial	Individual players are piloting circular and low waste solutions at the local (Replenish General Store , Comfy Cotton Diaper Reuse Service) and national scale (Ikea , Tim Hortons and Sobeys) and making national and global commitments such as the Global Plastics Pact
Community	Reuse charities have long been leaders in this sector (Habitat for Humanity ReStore , Furniture Bank) and demand for second hand goods is growing due to economic and environmental concerns

4. Analysis

Advancing a circular economy builds on Council’s waste management leadership supporting the Region’s overall Vision including our net zero target

The concept of the circular economy is not new to York Region and its local municipal partners. York Region is a leader in waste diversion, developing innovative programs to engage the community in waste prevention through the early years of the SM4RT Living Plan. Programs such as Repair Cafés, Curbside Giveaway Days, textile donation bins and the Lendery have helped our residents reduce waste and keep materials in use. Initiatives like the Circular Economy Initiatives Fund, and Good Food achieve broader benefits by engaging more partners and increasing capacity to deliver circular solutions in other sectors of our community.

Advancing a circular economy provides many benefits beyond waste reduction. As noted in Attachment 1, the circular economy can support all areas of the Region’s Vision. Actions in this area also align with Environmental, Social and Governance (ESG) frameworks described by the Region’s external auditor in their KPMG Audit Planning report presented in [January 2022](#) to Audit Committee.

Departments across the Region are already identifying, and piloting projects and programs aligned with circular economy, achieving efficiencies to reduce costs and lessen environmental impacts. For example, the pilot program “Making Old Asphalt New Again” was designed by Road Operations in conjunction with Transportation Capital Planning to reduce costs and lessen the environmental impact of our road projects. Since 2016, this asphalt recycling program has saved the Region \$1.8 million and diverted over 112,000 tonnes of asphalt from landfill. Another example led by Environmental Services builds on leading water conservation practices by exploring the feasibility of water and other resource reuse practices from groundwater dewatering and treated wastewater effluent at several Region sites. The team is also working on implementing wastewater energy transfer technologies within York Region to contribute to our climate action goals and greenhouse gas emission reduction targets.

The Roadmap was developed to coordinate efforts, increase collaboration across departments and external partners. It will identify opportunities, address barriers, scale up successes and learnings and provide focus for new initiatives to advance the circular economy within the Region.

Circular Cities and Regions Initiative provided expert guidance to support York Region’s Circular Economy Roadmap development

In 2021, York Region was accepted into the Canadian Circular Cities and Regions Initiative (CCRI) delivered by the Federation of Canadian Municipalities, National Zero Waste Council, Recycling Council of Alberta and Recyc-Quebec. The one-year pilot brought together a peer-to-peer network of 15 participating municipalities across Canada, all committed to advancing the circular economy within their communities. The program provided education, tools and support for each participating municipality to develop their own circular economy roadmap.

Work involved 13 interactive leadership sessions with experts and municipal leaders, two facilitated workshops with each municipality's staff, and a summary document providing guidance on opportunities and outcomes from the workshops. The Region will be sharing outcomes of our Roadmap journey with CCRI through a webinar in June 2022. Plans for ongoing networking and support tools developed through the CCRI will help guide participants in implementing their roadmaps.

Internal and community stakeholders shared ideas and examples of circular economy opportunities to inform development of the Roadmap

In developing the Roadmap, staff engaged with internal departments and external stakeholders to uncover existing circular examples, and identify opportunities to advancing the circular economy throughout the Region. Internal leaders from all departments at the Region were included in the two CCRI facilitated workshops to identify alignments between circular economy, their strategic priorities, and current processes and projects. As illustrated in Attachment 1, champions from across the corporation shared great projects that are already occurring and highlighted the opportunity to maximize learning and capture best practices. Opportunities identified included: creating a process to evaluate circular products and services against current offerings; gathering baseline information on current asset renewal and disposal practices; reviewing and updating policies on disposal of assets to facilitate reuse; and more education and awareness on circular economy concepts, including benefits and business cases for the municipal sector.

Community stakeholders representing 33 organizations/businesses with an interest in circular economy identified opportunities for the Region to support circular transition within the community. Participants indicated the Region could be most impactful by building community awareness and celebrating successes, developing tools for businesses, and providing opportunities for leaders and innovators to network and spark new collaborations. There was strong support for creating a community circular economy working group to advise the Region on programming, share ideas and experiences and act as ambassadors within the community.

Roadmap process identified five cross-cutting action areas for research, pilots, policy development and partnerships over the next three years

Ideas generated through engagement and best practices from leading communities informed selection of the Roadmap's action areas. As described in Attachment 1, these areas offer the greatest potential to address common challenges, provide benefits aligned with Region's Vision and Strategic Plan priorities and build local capacity to accelerate the circular economy.

1. Sustainable Food Systems
2. Reuse and Sharing
3. Community Capacity and Connections
4. Circular Procurement

5. Asset Management and Built Environment

The first three action areas are community-led, where York Region will influence, facilitate, and contribute to circular integration alongside partners, residents and businesses. The last two action areas represent opportunities for York Region to advance corporate priorities through circularity and demonstrate our continued commitment to making the same changes asked of residents and businesses in the community.

Using collaborative pilots, scaled up over time allows implementation with minimal risk while maximizing learning and capacity building

Table 2 shows initial projects to support action areas in the Roadmap. Implementation of actions will be led by the relevant service area, with support from Environmental Services, acting as connectors and coaches in circular economy practices. The approach involves piloting actions, evaluating and sharing outcomes to scale up successes, building knowledge, and expertise in circular economy practices. This approach has worked well previously in developing innovative programs with our local municipal and community partners through the SM4RT Living plan. Community-led actions build on existing partnerships developed under SM4RT Living. A community based, circular economy working group will be established to help guide and support external action areas. A competitive, transparent application process for that group will ensure balanced representation from a variety of sectors and communities, to provide valuable, unbiased advice and support.

Table 2
Early implementation Actions

Early Actions (1 to 3 years)	Lead/Support Departments
Establish knowledge hub for ongoing staff engagement and learning	Environmental Services
Establish community working group to guide external action areas	Environmental Services
Implement asphalt and sand recycling programs	Transportation Services
Explore a sustainable procurement framework	Finance/ Environmental Services/ all departments
Develop single use plastics programming for businesses and community	Environmental Services/ Economic Development/ Community and Health Services
Identify pilot opportunities for circularity in asset management, including review of disposal practices and policies	Environmental Services/ Corporate Asset Management

Implement wastewater energy transfer system within York Region	Environmental Services
Identify funding partnerships to support Agri-food innovation hub in York Region	Economic Development/ Environmental Services

5. Financial

Implementing the Circular Economy Roadmap will help achieve long term cost savings

Applying a circular lens to operations and service delivery will save money in the long term as we find ways to offer our services more efficiently and with less waste. Tools such as a sustainable procurement framework and updated asset management policies that incorporate full lifecycle costing and best value criteria will be crucial to evaluating the financial, environmental and social benefits and payback as projects are implemented.

As with many of the SM4RT Living projects, working with external partners has enabled development of the Roadmap using existing staff resources and budget. The Region successfully applied to the CCRI, which provided consulting support and staff training needed to develop the Roadmap. Many of the external projects fit within the work of the SM4RT Living Plan and can be funded through existing resources and partnerships, including funding of community projects through the Circular Economy Initiatives Fund. Opportunities to seek funding and in-kind contributions from external sources will be explored as projects are developed by the Region and community partners.

6. Local Impact

Local municipalities continue to partner on SM4RT Living programs as well as leveraging and adapting learnings from Roadmap actions

Local municipalities have been key players in the success of York Region's waste reduction and diversion programs under SM4RT Living. They will continue to advance the circular economy through delivery and expansion of reduction, reuse and diversion programs as part of their existing work. They also play a vital role in capacity building through new programs supporting businesses to reduce their reliance on single use items, corporate commitments to waste reduction at facilities and events, and climate change mitigation actions.

Existing channels for communication and collaboration between local and regional teams at the staff, management and council levels can also be leveraged to share outcomes of pilots and lessons learned. This information can then be used to scale up impacts across common functions such as procurement, asset management, climate change mitigation and waste management where appropriate.

7. Conclusion

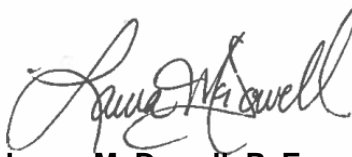
Strategic planning process can be leveraged to imbed circular economy lens in work across the corporation over the next term of council

Advancing the circular economy requires a change in mindset from the current linear approach to owning, using and disposing of resources to one where we focus on keeping the value of resources in the system with better design, maximizing use and recovery. Implementing changes over time will focus on experimentation, continuous improvement, and collaboration. Engagement and learning across departments and in the community will help to build knowledge, showcase successes, identify new champions and additional opportunities to advance the circular economy. By focusing efforts on the Roadmap's action areas such as sustainable food systems, circular procurement, reuse and sharing, and asset management, the Region can advance key priorities including climate change mitigation, energy and water demand management, economic vitality and quality of life for our residents.

A corporate-wide commitment to applying the circular lens to programs and processes is needed to enable change and achieve the Region's long-term vision including our net zero target. Approaches to imbedding circular economy principals into corporate priorities for the next term of council is being explored as part of the strategic planning and departmental performance planning process.

For more information on this report, please contact Laura McDowell, General Manager, Interim Transition, Environmental, Public Works at 1-877-464-9675 ext. 75077. Accessible formats or communication supports are available upon request.

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April 13, 2022
Attachments (1)
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