

Durham Region Long-term Waste Management Plan

DRAFT Targets and Actions Summary



Glossary and Abbreviations

Glossary Term	Definition
5Rs	Rethink, Reduce, Reuse, Recycle, Recover
BIA	Business Improvement Area – an organization that allows local businesspeople and commercial property owners and tenants to join together and, with the support of the municipality, to organize, finance, and carry out physical improvements and promote economic development in their district.
DYEC	Durham York Energy Centre - An energy-from-waste facility located in Durham Region that produces energy from the combustion/ burning of garbage that remains after all diversion programs.
EEE	Electrical and Electronic Equipment - As defined by the RPRA, consists of information technology, telecommunications, audio-visual equipment such as computers, printers, telephones, cell phones, speakers, cameras etc. Does not include small and large appliances, power tools, motor vehicles, children’s toys.
EPR	Extended Producer Responsibility - The responsibility producers, importers and brand owners have to reduce the environmental impact of their products and packaging. It extends across the product lifecycle and is also known as cradle-to-grave management.
FSO	Facility Separated Organics - Organic material that has been separated from other materials through mechanical means (i.e. at the Region’s Mixed Waste Pre-sort and Anaerobic Digestion Facility).
GHG	Greenhouse Gas - Gases in the Earth’s atmosphere that trap heat; typically refers to carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxide (N ₂ O).
HSP	Hazardous and Special Products - Consumer products that are hazardous to the environment if not disposed of properly; includes items like paints, solvent, pesticides, and compressed gas cylinders.
MRF	Material Recovery Facility - A facility that sorts Blue Box recycling into different material streams (e.g. aluminum, steel, glass) for marketing.
SSO	Source Separated Organics - Organic materials placed into the Green Bin by residents for collection by the Region.
WMF	Waste Management Facility - A facility that accepts materials such as appliances, recyclable materials, carpet, drywall, garbage, scrap metal, wood for a fee. There are five waste management facilities in Durham Region.

Objective 1: Engage with residents to build an understanding and awareness of the 5Rs (Rethink, Reduce, Reuse, Recycle, Recover) and the Region’s waste management programs and services.

Target	Measurement	Proposed Actions & Measurements	
<p>Target 1A: Increase public engagement on the 5Rs through partnerships, increased accessibility, and different media</p>	<p>Year over year increase (from 2018 or action start date) measured through metrics for proposed actions</p>	<p>1A1: Collaborate with Eco-Schools program to increase rethink and reduce activities in schools. Work with schools and school boards to provide educational content</p>	<p># of classrooms using Region content (41 schools in 2018)</p>
		<p>1A2: Transition to the Region’s central access point for residents to obtain waste management information (e.g. myDurham311). Evaluate opportunities to integrate waste management information sources into the myDurham311 platform</p>	<p># of contacts regarding waste management handled by myDurham311</p>
		<p>1A3: Undertake a promotion and education campaign to increase Waste app subscribers</p>	<p># of subscribers (50,000 in 2018)</p>
		<p>1A4: Provide information on reduction and reuse by adding a dedicated section to the Region’s webpage</p>	<p># of visits to webpages</p>
		<p>1A5: Investigate technical feasibility of enhancements to Waste app to include locations of donation centers including cost and maintenance implications</p>	<p>Evaluation of technical feasibility of enhancements</p>

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<p>Target 1A: Increase public engagement on the 5Rs through partnerships, increased accessibility, and different media</p>	<p>Year over year increase (from 2018 or action start date) measured through metrics for proposed actions</p>	<p>1A6: Create and deliver content for digital and/or in-person engagement, including live online meetings for residents, how-to videos, tours of waste management facilities. Investigate collaborations with community groups</p>	<p># of views, # of meetings and/or tours, # of people attending meetings and/or tours</p>
		<p>1A7: Work with Diversity, Equity and Inclusion Department to determine additional languages for publications, promotion and education materials and outreach events such as multi-cultural groups and clubs</p>	<p>Increased # of languages available</p>

Objective 2: Reduce the quantity of waste we create.

Target	Measurement	Proposed Actions
<p>Target 2A: Support residents in making behavioural changes to reduce food waste</p>	<p>Reduce quantities of food waste in the garbage by XX% (2018 baseline is 30% food waste in single-family garbage - 2018 Composition Study)</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 2A1: Continue with the Region’s “Buy it, Eat it” food waste reduction campaign and develop additional themes for next iteration of the campaign
<p>Target 2B: Support residents in making behavioural changes to reduce the amount of waste generated</p>	<p>Reduce quantities of materials generated such as durable goods, textiles and single-use plastics by XX% as a per cent of all waste streams (2018 baseline of 7% textiles in single-family garbage; additional measures to be established in audit program)</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 2B1: Measure annual generation rates of garbage (kg per capita) to track progress in reducing garbage disposed. (2018: 173.1 kg garbage disposed/capita) • 2B2: Develop a monitoring program to measure waste setouts and composition on a regular basis to determine quantities of food waste, durable goods, textiles, single-use plastics, etc. through audits of garbage, curbside SSO and FSO <p>Mid-term Actions</p> <ul style="list-style-type: none"> • 2B3: Evaluate partnerships with local charities on common messaging, sharing platforms and other circular economy opportunities • 2B4: Partner with local area municipalities on a common message and approach to textile diversion and single-use item reduction in support of federal action to ban some single-use plastics

Objective 3: Increase diversion of waste from disposal and support the circular economy.

Target	Measurement	Proposed Actions
<p>Target 3A: Increase diversion of organics from disposal</p>	<p>Increase Green Bin organics diversion by XX% by 2026 (2018: 41.1 kg Green Bin organics collected/capita)</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 3A1: Develop, commission, and operate the Mixed Waste Pre-sort and Anaerobic Digestion Facility to divert organics from garbage, primarily from multi-residential buildings and also from single-family residences • 3A2: Launch an enhanced Green Bin program for single-family residences • 3A3: Encourage backyard composting by providing information about successful composting practices and promoting the Region’s sale of subsidized composters • 3A4: Expand collection services to more Regional facilities such as Long-Term Care homes to divert more organics <p>Mid-term Actions</p> <ul style="list-style-type: none"> • 3A5: Increase the number of multi-residential buildings being serviced by the Region to divert more material
<p>Target 3B: Revise Waste Management By-law 46-2011 to reflect changes to Regional collection and processing programs and services</p>	<p>Revise By-law by 2026</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 3B1: Revise By-law to reflect transition of EPR programs and changes to the Region’s responsibilities regarding collection of materials such as Blue Box, EEE, HSP, batteries, definition of recycling receptacles, use/operation of the Material Recovery Facility, schedules, etc. • 3B2: Revise By-law to include a new section for the Mixed Waste Pre-sort and Anaerobic Digestion Facility and its operation/use • 3B3: Review options to service denser developments (e.g. smaller trucks, alternative collection containers, collection on one side of street, central collection areas etc.) to better service the multi-residential sector and make any necessary amendments to By-law and collection contracts as required

Objective 3: Increase diversion of waste from disposal and support the circular economy.

Target	Measurement	Proposed Actions
<p>Target 3C: Develop a transition plan that supports EPR programs</p>	<p>Successful transition to EPR in 2024</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 3C1: Work with producers to understand how programs will be rolled out and the impact on the Region • 3C2: Develop promotion and education campaigns, in collaboration with the producers, to inform residents of the programs’ transitions and educate them on changes to the programs • 3C3: Transition the program(s) to producers and make any required modifications to areas remaining under the Region’s responsibilities • 3C4: Explore opportunities to reuse or recycle materials not covered under the regulations for HSP (e.g. refillable propane cylinders, or fertilizer) • 3C5: Assess options for the Region’s MRF building and equipment • 3C6: Evaluate if changes to accepted materials or handling practices are required at WMFs to adapt to EPR regulations • 3C7: Evaluate if the Region will continue to provide recycling collection service to ineligible sources (i.e. small businesses in BIAs and other small businesses currently serviced in the curbside collection program)

Objective 3: Increase diversion of waste from disposal and support the circular economy.

Target	Measurement	Proposed Actions
<p>Target 3D: Advocate for the expansion of existing EPR programs and for additional EPR programs to manage more materials</p>	<p>Number of advocacy efforts (e.g. letters, conversations, participation in related webinars/feedback sessions) towards new or expanded EPR programs for materials such as compostable packaging, mattresses, carpets, furniture, appliances, textiles, hard plastics, fertilizers, appliances, etc.</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 3D1: Continue participation in the solid waste management committees of municipal advocacy organizations including Association of Municipalities in Ontario, the Regional Public Works Commissioners of Ontario, Municipal Waste Association, Circular Innovation Council, Canadian Biogas Association and Ontario Waste Management Association • 3D2: Continue to participate in consultation opportunities for proposed federal and provincial waste management changes <p>Mid to Long-term Actions</p> <ul style="list-style-type: none"> • 3D3: Advocate to the Federal and Provincial governments for implementation of new producer responsibility programs to divert more materials from disposal • 3D4: Advocate for existing programs to be expanded (e.g., recycling, hazardous waste, electronics) • 3D5: Provide comments on any proposed producer responsibility programs to ensure Durham Region’s considerations are included in the development of regulations

Objective 4: Support the Region’s greenhouse gas reduction and climate change mitigation efforts.

Target	Measurement	Proposed Actions
<p>Target 4A: Develop initiatives to offset or reduce GHG emissions from solid waste that contribute to Corporate GHG emissions</p>	<p>Annual actions to implement initiatives to reduce GHG emissions to contribute to the Corporate GHG emissions reduction target of 40 per cent below 2019 levels by 2030 (and 100 per cent below 2019 levels by 2045)</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 4A1: Explore opportunities for a pilot program to convert contracted collection fleet vehicles to alternative fuels in advance of contract expiry • 4A2: Identify opportunities for conversion of biogas to RNG at Region-owned facilities (e.g., Mixed Waste Pre-sort and Anaerobic Digestion Facility, Water Pollution Control Plant) • 4A3: Identify additional methodologies which could be used to determine GHG emission reductions and avoidance associated with waste reduction, reuse, recycling and recovery that are not currently reflected in the Corporate GHG inventory • 4A4: Undertake additional analyses such as heat balance between Anaerobic Digestion Facility, Water Pollution Control Plant and DYEC and a review of better or higher uses of materials such as wood waste received at the Waste Management Facilities (WMFs) <p>Mid to Long-term Actions</p> <ul style="list-style-type: none"> • 4A5: Develop a carbon emissions management plan in partnership with the Region’s Sustainability group • 4A6: Work with other Divisions (e.g., Purchasing, Facilities, Legal, Sustainability Office) to leverage the Region’s buying power to develop in-house circular economy initiatives • 4A7: Explore options for wind/solar installation at WMFs • 4A8: Explore opportunities to convert some or all fleet vehicles to alternative fuels in advance of contract expiry • 4A9: Assess material management from WMFs to evaluate operational practices (e.g., compaction, transfer) at WMFs that would reduce emissions from transportation

Objective 5: Protect or improve water, land and air quality in Durham Region.

Target	Measurement	Proposed Actions
<p>Target 5A: Optimize the operation and utilization of Waste Management Facilities (WMFs)</p>	<p>Annual actions to optimize operations at WMFs</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 5A1: Explore options to optimize the Oshawa WMF (e.g., traffic, new indoor/outdoor facility) • 5A2: Develop actions to improve the diversion services at WMFs (e.g., fertilizer reuse, bulky plastics recycling, separation of renovation/construction materials) <p>Mid to Long-term Actions</p> <ul style="list-style-type: none"> • 5A3: Explore options to optimize Brock and Scugog WMFs • 5A4: Evaluate business case to develop a new facility or smaller drop-off depots with consideration to under-serviced areas
<p>Target 5B: Increase accessibility of waste management programs and services</p>	<p>Changes to operating hours and physical accessibility of WMFs</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 5B1: Investigate extending hours of operation (i.e. open later in the evening, different/more days, seasonal hours) to make access to the WMFs more convenient for users, especially those who work more traditional hours (e.g. 9-5) • 5B2: Assess accessibility of WMFs (e.g. signage, access to containers, stairs, ramps etc.) to ensure they are physically accessible <p>Mid-term Actions</p> <ul style="list-style-type: none"> • 5B3: Explore options for waste collection with accessibility considerations

Objective 5: Protect or improve water, land and air quality in Durham Region.

Target	Measurement	Proposed Actions
<p>Target 5C: Explore options to reduce environmental impacts of closed landfills and potential for future community use</p>	<p>Annual progress towards implementing alternative landfill cover systems at closed landfills and conversion for community use</p>	<p>Short-term Actions</p> <ul style="list-style-type: none"> • 5C1: Maintain current landfill monitoring and perpetual care program while evaluating additional options to minimize landfill GHG generation and other environmental impacts • 5C2: Evaluate outcome of pilot project at Oshawa Landfill for an alternative landfill biocover system <p>Mid to Long-term Actions</p> <ul style="list-style-type: none"> • 5C3: Based on outcomes of Oshawa Landfill pilot project, evaluate potential to implement biocover at other Region-owned closed landfills • 5C4: Explore options to install solar covers at closed landfills • 5C5: Evaluate potential to rehabilitate closed landfills for community use